



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

March 25, 2011

4SESD-MTSB

MEMORANDUM

SUBJECT: FINAL Analytical Report

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Superfund Emergency Response and Removal

FROM: Jeffrey Hendel

Quality Assurance Section Chemist

THRU: Marilyn Maycock, Chief

Quality Assurance Section

TO: Timothy Simpson

Attached are the final results for the analytical groups listed below. These analyses were performed in accordance with the associated contract Statement Of Work (SOW). In general, project data quality objectives have not been used to evaluate these data prior to release by the Quality Assurance Section. For a listing of specific data qualifiers and explanations, please refer to the Data Qualifier Definitions included in this report.

Analyses Included in this report:

Method Used:

Dioxin (DIO)

Dioxin

Contract SOW



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Report Narrative for Work Order C110907, Project: 11-0207

Site Name: Kerr-McGee Chemical Site, Columbus, MS

ELEMENT Sample Nos. C110907-01 through C110907-63

Dioxin Analysis: Cape Fear Analytical, Wilmington, NC

The ESAT Work Team reviewed data for the project cited above consisting of sixty-one (61) soil samples analyzed per statement of work DLM02.2 for dioxins and furans reported in four Sample Delivery Groups (SDGs). The samples were collected between 02/14/11 and 02/17/11, and received by the laboratory between 02/17/11 and 02/18/11. The final data package was received by the USEPA Quality Assurance Section, Region 4 SESD/MTSB on 03/10/11. A Stage 4 validation consisting of a manual review (S4VM) was performed on the dioxin samples submitted for this case. The data package presents acceptable technical performance with qualifications.

Certain results among these data are reported as not detected at an elevated detection limit. In general, this may occur when method blank contamination is evident, or when one or more of the qualitative identification criteria have not been met. In the event of method blank contamination, detection limits may be raised as much as five times the level of contamination in order to discount false positive results. If qualitative identification criteria are not met for an analyte, an estimated maximum possible concentration (EMPC) value is reported, and is qualified as non-detect ("U" flag).

The method reporting limit (MRL), as defined elsewhere in this document, is used in dioxin/furan analyses to report the analyte concentration which corresponds to the lowest quantitative point on the calibration curve. Any positive results less than this value are qualified as estimates ("J" flag). The value reported for a 2,3,7,8-substituted PCDD/PCDF analyte that is not detected is either an estimated detection limit (EDL), which is calculated from the instrument signal vs. system noise, or an EMPC value as described above, qualified with a "U" flag.

Toxic equivalent quantities (TEQ) have been reported for these data which have been derived from the most recently available set of toxic equivalent factors (TEF). For mammalian TEQs, these factors were published in 2005 by the World Health Organization (WHO). In the case of the TEQs for birds and fish, the factors were published in 1998, also by WHO.

Toxic equivalent values for non-detect results are determined using the EDL or the EMPC as a proxy value. Thus a sample with non-detect results for all PCDD/PCDF congeners will still have a positive TEQ value. The TEQ is qualified as estimated ("J") when the sum of the contributions from the various PCDD/PCDF analytes that are themselves reported as either estimated ("J") or non-detect ("U") exceeds 10% of the TEQ total. If no positive results are present for any of the 2,3,7,8 congeners, the TEQ is reported as not detected with an estimated detection limit ("UJ").

Pertinent data quality factors are discussed below.



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Sample C110907-07 was re-extracted outside of the contractual holding time due to low recoveries of labeled standards. The technical holding time was not affected and data qualification was not required.

The laboratory scored within limits for all congeners in the performance evaluation sample (PES) spike. The congeners 2,3,7,8-TCDF (0.308 ng/Kg) and OCDD (0.666 ng/Kg) were reported as contaminants at less than the contract required quantitation limit (CRQL) in the PES blank and these two congeners were treated as method blank contaminants during data qualification. Also, the laboratory did not analyze any of the associated method blanks on the confirming DB-225 column. The reported results for OCDD were not affected, however, all results for 2,3,7,8-TCDF which were below 5X the PES blank (1.54 ng/Kg) from either the DB-5 or DB-225 column were reported as not detected. Further, the reporting limits for 2,3,7,8-TCDF were elevated and reported as not detected (U, B-4) in the following samples: C110907-01, 23, 35, 36, 37, 38, and 41.

Poor chromatography (*e.g.* split peaks, precursors, or excessive tailing) or lock mass drift was observed for the HxCDD and/or HxCDF congener(s) in the following samples: C110907-01, 02, 05, 06, 07, 08, 10, 13, 14, 15, 23, 24, 29, 31, 36, 37, 38, 39, 40, 41, 43, 47, 55, and 59. The associated congeners were “J” qualified (CLP33) in the above samples.

The recoveries of the labeled standards (QI-1) for the undiluted analysis of sample C110907-59 were used to qualify the 50X dilution as follows:

The non-detected result for the 2,3,7,8-TCDF congener was “R” qualified since the labeled recovery was less than 10 %;

The non-detected result for the 2,3,7,8-TCDD congener was “J” qualified since labeled recovery was below QC limits;

The positive results for all the HxCDD congeners, the 1,2,3,4,7,8-HxCDF, 1,2,3,6,7,8-HxCDF, and 2,3,4,6,7,8-HxCDF congeners, and the 1,2,3,4,7,8,9-HpCDF congener were all “J” qualified since labeled recoveries were above QC limits.

The results of the 50X dilution were used for Element entry and not corrected for the labeled recoveries reported from the undiluted analysis. The results from the undiluted analysis were not used due to poor chromatography.

The results for the congener OCDD exceeded the calibration range and were “J” qualified (CLP02) in samples C110907-01, 02, 03, 04, 06, 07, 08, 10, 12, 13, 14, 15, 19, 21, 22, 23, 24, 25, 29, 31, 33, 34, 35, 36, 37, 39, 40, 41, 42, 47, 51, 59, and 61. It should be noted that the SOW does not require dilutions for the OCDD congener.



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The relative retention times of some congeners and/or labeled standards were outside of the limits specified in the Statement of Work, Exhibit D, Table 2. Based on the absolute retention times and daily adjustments of descriptor switching times, data qualification was deemed not necessary.

All data qualification factors are explained by the Region 4 - specific qualifier definitions which are included elsewhere in this report. Further details are provided in the complete data review report, which is on file in the Region 4 SESD Records Center.

cc: Nardina Turner



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SAMPLES INCLUDED IN THIS REPORT

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID	Laboratory ID	MD#	D#	Matrix	Date Collected
12131A2SF	C110907-01	69P6		Surface Soil	2/14/11 15:25
12323A2SF	C110907-02	69P7		Surface Soil	2/15/11 10:30
12324A2SF	C110907-03	69P8		Surface Soil	2/15/11 10:55
12462A2SF	C110907-04	69P9		Surface Soil	2/15/11 14:37
12462B2SF	C110907-05	69Q0		Surface Soil	2/15/11 14:58
12462C2SF	C110907-06	69Q1		Surface Soil	2/15/11 15:30
12462C2SFX	C110907-07	69Q2		Surface Soil	2/15/11 15:30
12462GA1SF	C110907-08	69Q3		Surface Soil	2/15/11 14:20
12462GB1SF	C110907-09	69Q4		Surface Soil	2/15/11 14:35
12463GB2SF	C110907-10	69Q5		Surface Soil	2/15/11 15:25
12463GC1SF	C110907-11	69Q7		Surface Soil	2/15/11 14:50
12462GC2SF	C110907-12	69Q6		Surface Soil	2/15/11 15:05
12470A2SF	C110907-13	69Q8		Surface Soil	2/15/11 11:55
12484A2SF	C110907-14	69Q9		Surface Soil	2/14/11 16:10
12486A2SF	C110907-15	69R0		Surface Soil	2/14/11 16:50
12490A2SF	C110907-16	69R1		Surface Soil	2/15/11 09:05
12490A2SFX	C110907-17	69R2		Surface Soil	2/15/11 09:10
12491A2SF	C110907-18	69R3		Surface Soil	2/15/11 09:50
12520A2SF	C110907-19	69R4		Surface Soil	2/15/11 10:40
12522A2SF	C110907-20	69R5		Surface Soil	2/15/11 10:15
12621A2SF	C110907-21	69R6		Surface Soil	2/15/11 09:45
12622A2SF	C110907-22	69R7		Surface Soil	2/15/11 09:20
12623A2SF	C110907-23	69R8		Surface Soil	2/15/11 09:00
12624B2SF	C110907-24	69S0		Surface Soil	2/14/11 15:30
12629A2SF	C110907-25	69S1		Surface Soil	2/14/11 16:45
12630A2SF	C110907-26	69S2		Surface Soil	2/14/11 16:30
12633A2SF	C110907-27	69S3		Surface Soil	2/15/11 08:22
12634A2SF	C110907-28	69S4		Surface Soil	2/15/11 08:40
13723A2SF	C110907-29	69S5		Surface Soil	2/14/11 16:05
13743A2SF	C110907-30	69S6		Surface Soil	2/15/11 16:25
13744A2SF	C110907-31	69S7		Surface Soil	2/14/11 15:50
13744B2SB12	C110907-32	69S8		Subsurface Soil	2/14/11 15:30
13744B2SF	C110907-33	69S9		Surface Soil	2/14/11 15:10
13746A2SF	C110907-34	69T0		Surface Soil	2/15/11 11:05



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13750A2SF	C110907-35	69T1	Surface Soil	2/15/11 10:55
13753A2SF	C110907-36	69T2	Surface Soil	2/15/11 10:40
13755A2SF	C110907-37	69T3	Surface Soil	2/15/11 10:00
13756A2SF	C110907-38	69T4	Surface Soil	2/15/11 09:50
13758A2SF	C110907-39	69T5	Surface Soil	2/15/11 09:30
13758A2SFX	C110907-40	69T6	Surface Soil	2/15/11 09:32
13759A2SF	C110907-41	69T7	Surface Soil	2/15/11 09:15
13761A2SF	C110907-42	69T8	Surface Soil	2/15/11 09:05
13762A2SF	C110907-43	69T9	Surface Soil	2/15/11 08:50
13764A2SF	C110907-44	69W0	Surface Soil	2/15/11 15:50
13764A2SFX	C110907-45	69W1	Surface Soil	2/15/11 15:50
13766A2SF	C110907-46	69W2	Surface Soil	2/15/11 08:30
13767A2SF	C110907-47	69W3	Surface Soil	2/14/11 14:58
13774A2SF	C110907-48	69W4	Surface Soil	2/15/11 11:20
13775A2SB12	C110907-49	69W5	Subsurface Soil	2/15/11 12:50
13775A2SF	C110907-50	69W6	Surface Soil	2/15/11 12:30
13785A2SF	C110907-51	69W7	Surface Soil	2/15/11 15:10
13889A2SF	C110907-52	69W8	Surface Soil	2/15/11 14:50
13890A2SF	C110907-53	69W9	Surface Soil	2/15/11 14:20
13894A2SF	C110907-54	69X0	Surface Soil	2/15/11 13:50
13900A2SF	C110907-55	69X1	Surface Soil	2/15/11 13:25
29844A2SF	C110907-56	69X2	Surface Soil	2/15/11 16:52
KM1501A2SF	C110907-57	69X3	Surface Soil	2/15/11 08:30
KMPP1SF	C110907-58	69P5	Surface Soil	2/15/11 17:00
KMWP01	C110907-59	69X4	Surface Soil	2/16/11 09:00
KMWP02	C110907-60	69X5	Surface Soil	2/17/11 12:30
12624A2SB12	C110907-61	69R9	Subsurface Soil	2/14/11 16:04



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DATA QUALIFIER DEFINITIONS

U	The analyte was not detected at or above the reporting limit.
B-4	Level in blank impacts MRLs.
CLP01	Concentration reported is less than the lowest standard on calibration curve
CLP02	Concentration reported is greater than the highest standard on calibration curve
CLP10	2,3,7,8-TCDF confirmed by second column.
CLP18	Estimated Maximum Possible Concentration (EMPC) Reported
CLP24	Result has not been confirmed by second column analysis.
CLP33	Poor Chromatography - Split Peaks and/or Poor Peak Shape Present
D-5	Estimated quantitation for one or more individual constituents comprising >10% of the total.
J	The identification of the analyte is acceptable; the reported value is an estimate.
Q-3	Instrument not calibrated for all constituents of the total concentration result.
OI-1	Internal standard was outside of method control limits.
R	The presence or absence of the analyte can not be determined from the data due to severe quality control problems. The data are rejected and considered unusable.

ACRONYMS AND ABBREVIATIONS

CAS	Chemical Abstracts Service Note: Analytes with no known CAS identifiers have been assigned codes beginning with "E", the EPA ID as assigned by the EPA Substance Registry System (www.epa.gov/srs), or beginning with "R4-", a unique identifier assigned by the EPA Region 4 laboratory.
MDL	Method Detection Limit - The minimum concentration of a substance (an analyte) that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero.
MRL	Minimum Reporting Limit - Analyte concentration that corresponds to the lowest demonstrated level of acceptable quantitation. The MRL is sample-specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments.
TIC	Tentatively Identified Compound - An analyte identified based on a match with the instrument software's mass spectral library. A calibration standard has not been analyzed to confirm the compound's identification or the estimated concentration reported.



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Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site**Contract Lab Case: 41017****Sample ID:** 12131A2SF**Lab ID:** C110907-01**MD No:****Station ID:** 12131**Matrix:** Surface Soil**D No: 69P6 CAPE****Date Collected:** 2/14/11 15:25

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	19		%		2/21/11	3/02/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	720		ng/kg dry	5.0	2/21/11	3/02/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	140		ng/kg dry	5.0	2/21/11	3/02/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	8.3		ng/kg dry	5.0	2/21/11	3/02/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	6.4	J, CLP33	ng/kg dry	5.0	2/21/11	3/02/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	15		ng/kg dry	5.0	2/21/11	3/02/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	17	J, CLP33	ng/kg dry	5.0	2/21/11	3/02/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	5.4		ng/kg dry	5.0	2/21/11	3/02/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	12	J, CLP33	ng/kg dry	5.0	2/21/11	3/02/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	3.0	J, CLP01	ng/kg dry	5.0	2/21/11	3/02/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	2.7	J, CLP01	ng/kg dry	5.0	2/21/11	3/02/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.98	J, CLP01	ng/kg dry	5.0	2/21/11	3/02/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	7.6	J, CLP33	ng/kg dry	5.0	2/21/11	3/02/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	4.0	J, CLP01	ng/kg dry	5.0	2/21/11	3/02/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.30	J, CLP01	ng/kg dry	1.0	2/21/11	3/02/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	1.5	U, B-4	ng/kg dry	1.0	2/21/11	3/02/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	1800	J, Q-3	ng/kg dry	5.0	2/21/11	3/02/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	450	J, Q-3	ng/kg dry	5.0	2/21/11	3/02/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	180	J, Q-3	ng/kg dry	5.0	2/21/11	3/02/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	180	J, Q-3	ng/kg dry	5.0	2/21/11	3/02/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	8700	J, CLP02	ng/kg dry	10	2/21/11	3/02/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	370		ng/kg dry	10	2/21/11	3/02/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	21	J, Q-3	ng/kg dry	5.0	2/21/11	3/02/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	45	J, Q-3	ng/kg dry	5.0	2/21/11	3/02/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	17	J, D-5	ng/kg dry	17	2/21/11	3/02/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	15	J, D-5	ng/kg dry	15	2/21/11	3/02/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	23	J, D-5	ng/kg dry	23	2/21/11	3/02/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	3.8	J, Q-3	ng/kg dry	1.0	2/21/11	3/02/11	CL DLM02.0



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Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12131A2SF

Lab ID: C110907-01

MD No:

Station ID: 12131

Matrix: Surface Soil

D No: 69P6 CAPE

Date Collected: 2/14/11 15:25

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	12	J, Q-3	ng/kg dry	1.0	2/21/11	3/02/11	CL DLM02.0



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Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site**Contract Lab Case: 41017****Sample ID:** 12323A2SF**Lab ID:** C110907-02**MD No:****Station ID:** 12323**Matrix:** Surface Soil**D No:** 69P7 CAPE**Date Collected:** 2/15/11 10:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	22		%		2/21/11	3/02/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	1200		ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	210		ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	14		ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	9.2	J, CLP33	ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	18		ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	28	J, CLP33	ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	7.1		ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	17	J, CLP33	ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	3.9	J, CLP01	ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	3.0	J, CLP01	ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	2.1	J, CLP01	ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	11	J, CLP33	ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	4.8	J, CLP01	ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.46	J, CLP01	ng/kg dry	0.99	2/21/11	3/02/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	2.0	CLP10	ng/kg dry	0.99	2/21/11	3/02/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	3200	J, Q-3	ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	650	J, Q-3	ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	310	J, Q-3	ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	270	J, Q-3	ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	12000	J, CLP02	ng/kg dry	9.9	2/21/11	3/02/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	550		ng/kg dry	9.9	2/21/11	3/02/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	34	J, Q-3	ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	66	J, Q-3	ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	22	J, D-5	ng/kg dry	22	2/21/11	3/02/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	20	J, D-5	ng/kg dry	20	2/21/11	3/02/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	33	J, D-5	ng/kg dry	33	2/21/11	3/02/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	13	J, Q-3	ng/kg dry	0.99	2/21/11	3/02/11	CL DLM02.0



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980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12323A2SF

Lab ID: C110907-02

MD No:

Station ID: 12323

Matrix: Surface Soil

D No: 69P7 CAPE

Date Collected: 2/15/11 10:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
30402-14-3	Tetrachlorodibenzofuran (Total)	22	J, Q-3	ng/kg dry	0.99	2/21/11	3/02/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12324A2SF

Lab ID: C110907-03

MD No:

Station ID: 12324

Matrix: Surface Soil

D No: 69P8 CAPE

Date Collected: 2/15/11 10:55

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	20		%		2/21/11	3/04/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	2900		ng/kg dry	25	2/21/11	3/04/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	420		ng/kg dry	25	2/21/11	3/04/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	34		ng/kg dry	25	2/21/11	3/04/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	17	J, CLP01	ng/kg dry	25	2/21/11	3/04/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	53		ng/kg dry	25	2/21/11	3/04/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	63		ng/kg dry	25	2/21/11	3/04/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	22	J, CLP01	ng/kg dry	25	2/21/11	3/04/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	29		ng/kg dry	25	2/21/11	3/04/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	16	J, CLP01	ng/kg dry	25	2/21/11	3/04/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	4.6	J, CLP01	ng/kg dry	25	2/21/11	3/04/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	5.3	J, CLP01	ng/kg dry	25	2/21/11	3/04/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	22	J, CLP01	ng/kg dry	25	2/21/11	3/04/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	14	J, CLP01	ng/kg dry	25	2/21/11	3/04/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	1.4	U	ng/kg dry	5.0	2/21/11	3/04/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	3.3	J, CLP01, CLP24	ng/kg dry	5.0	2/21/11	3/04/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	2900	J, Q-3	ng/kg dry	25	2/21/11	3/04/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	1500	J, Q-3	ng/kg dry	25	2/21/11	3/04/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	630	J, Q-3	ng/kg dry	25	2/21/11	3/04/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	760	J, Q-3	ng/kg dry	25	2/21/11	3/04/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	37000	J, CLP02	ng/kg dry	50	2/21/11	3/04/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	960		ng/kg dry	50	2/21/11	3/04/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	53	J, Q-3	ng/kg dry	25	2/21/11	3/04/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	120	J, Q-3	ng/kg dry	25	2/21/11	3/04/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	50	J, D-5	ng/kg dry	50	2/21/11	3/04/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	45	J, D-5	ng/kg dry	45	2/21/11	3/04/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	78	J, D-5	ng/kg dry	78	2/21/11	3/04/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	6.4	J, Q-3	ng/kg dry	5.0	2/21/11	3/04/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12324A2SF

Lab ID: C110907-03

MD No:

Station ID: 12324

Matrix: Surface Soil

D No: 69P8 CAPE

Date Collected: 2/15/11 10:55

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	29	J, Q-3	ng/kg dry	5.0	2/21/11	3/04/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin**Project: 11-0207, Kerr-McGee Chemical (Columbus) Site****Contract Lab Case: 41017****Sample ID: 12462A2SF****Lab ID: C110907-04****MD No:****Station ID: 12462A****Matrix: Surface Soil****D No: 69P9 CAPE****Date Collected: 2/15/11 14:37**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	29		%		2/21/11	3/04/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	1800		ng/kg dry	9.9	2/21/11	3/04/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	500		ng/kg dry	9.9	2/21/11	3/04/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	20		ng/kg dry	9.9	2/21/11	3/04/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	22		ng/kg dry	9.9	2/21/11	3/04/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	39		ng/kg dry	9.9	2/21/11	3/04/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	190		ng/kg dry	9.9	2/21/11	3/04/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	17		ng/kg dry	9.9	2/21/11	3/04/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	83		ng/kg dry	9.9	2/21/11	3/04/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	6.2 J, CLP01		ng/kg dry	9.9	2/21/11	3/04/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	11		ng/kg dry	9.9	2/21/11	3/04/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	3.6 J, CLP01		ng/kg dry	9.9	2/21/11	3/04/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	20		ng/kg dry	9.9	2/21/11	3/04/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	7.4 J, CLP01		ng/kg dry	9.9	2/21/11	3/04/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	1.5 J, CLP01		ng/kg dry	2.0	2/21/11	3/04/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	1.1 U		ng/kg dry	2.0	2/21/11	3/04/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	1800 J, Q-3		ng/kg dry	9.9	2/21/11	3/04/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	1200 J, Q-3		ng/kg dry	9.9	2/21/11	3/04/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	1200 J, Q-3		ng/kg dry	9.9	2/21/11	3/04/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	500 J, Q-3		ng/kg dry	9.9	2/21/11	3/04/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	16000 J, CLP02		ng/kg dry	20	2/21/11	3/04/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	790		ng/kg dry	20	2/21/11	3/04/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	140 J, Q-3		ng/kg dry	9.9	2/21/11	3/04/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	110 J, Q-3		ng/kg dry	9.9	2/21/11	3/04/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	50 J, D-5		ng/kg dry	50	2/21/11	3/04/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	48 J, D-5		ng/kg dry	48	2/21/11	3/04/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	81 J, D-5		ng/kg dry	81	2/21/11	3/04/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	17 J, Q-3		ng/kg dry	2.0	2/21/11	3/04/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12462A2SF

Lab ID: C110907-04

MD No:

Station ID: 12462A

Matrix: Surface Soil

D No: 69P9 CAPE

Date Collected: 2/15/11 14:37

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
30402-14-3	Tetrachlorodibenzofuran (Total)	12	J, Q-3	ng/kg dry	2.0	2/21/11	3/04/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site**Contract Lab Case: 41017****Sample ID: 12462B2SF****Lab ID: C110907-05****MD No:****Station ID: 12462B****Matrix: Surface Soil****D No: 69Q0 CAPE****Date Collected: 2/15/11 14:58**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	26		%		2/21/11	3/02/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	1600		ng/kg dry	25	2/21/11	3/02/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	380		ng/kg dry	25	2/21/11	3/02/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	22	J, CLP01	ng/kg dry	25	2/21/11	3/02/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	12	U, J, CLP18, CLP33	ng/kg dry	25	2/21/11	3/02/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	34	J, CLP33	ng/kg dry	25	2/21/11	3/02/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	120	J, CLP33	ng/kg dry	25	2/21/11	3/02/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	11	J, CLP01, CLP33	ng/kg dry	25	2/21/11	3/02/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	53	J, CLP33	ng/kg dry	25	2/21/11	3/02/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	4.4	J, CLP01, CLP33	ng/kg dry	25	2/21/11	3/02/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	7.2	J, CLP01	ng/kg dry	25	2/21/11	3/02/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	2.1	J, CLP01	ng/kg dry	25	2/21/11	3/02/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	16	J, CLP01, CLP33	ng/kg dry	25	2/21/11	3/02/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	6.3	J, CLP01	ng/kg dry	25	2/21/11	3/02/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.70	U	ng/kg dry	5.0	2/21/11	3/02/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	1.0	U	ng/kg dry	5.0	2/21/11	3/02/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	5100	J, Q-3	ng/kg dry	25	2/21/11	3/02/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	1000	J, Q-3	ng/kg dry	25	2/21/11	3/02/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	770	J, Q-3	ng/kg dry	25	2/21/11	3/02/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	480	J, Q-3	ng/kg dry	25	2/21/11	3/02/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	17000		ng/kg dry	50	2/21/11	3/02/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	890		ng/kg dry	50	2/21/11	3/02/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	69	J, Q-3	ng/kg dry	25	2/21/11	3/02/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	65	J, Q-3	ng/kg dry	25	2/21/11	3/02/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	36	J, D-5	ng/kg dry	36	2/21/11	3/02/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	33	J, D-5	ng/kg dry	33	2/21/11	3/02/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin**Project: 11-0207, Kerr-McGee Chemical (Columbus) Site****Contract Lab Case: 41017**Sample ID: 12462B2SFLab ID: C110907-05

MD No:

Station ID: 12462B

Matrix: Surface Soil

D No: 69Q0 CAPE

Date Collected: 2/15/11 14:58

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	60	J, D-5	ng/kg dry	60	2/21/11	3/02/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	3.3	J, Q-3	ng/kg dry	5.0	2/21/11	3/02/11	CL DLM02.0
30402-14-3	Tetrachlorodibenzofuran (Total)	6.6	J, Q-3	ng/kg dry	5.0	2/21/11	3/02/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site**Contract Lab Case: 41017****Sample ID: 12462C2SF****Lab ID: C110907-06****MD No:****Station ID: 12462C****Matrix: Surface Soil****D No: 69Q1 CAPE****Date Collected: 2/15/11 15:30**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	20		%		2/21/11	2/25/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	590		ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	510		ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	15		ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	7.3	J, CLP33	ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	28		ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	26	J, CLP33	ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	12		ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	17	J, CLP33	ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	2.8	J, CLP01	ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	2.4	J, CLP01	ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	1.2	U, CLP18	ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	13	J, CLP33	ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	3.6	J, CLP01	ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.24	U	ng/kg dry	0.99	2/21/11	2/25/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.83	U	ng/kg dry	0.99	2/21/11	2/25/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	1400	J, Q-3	ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	940	J, Q-3	ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	270	J, Q-3	ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	330	J, Q-3	ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	5400	J, CLP02	ng/kg dry	9.9	2/21/11	2/25/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	380		ng/kg dry	9.9	2/21/11	2/25/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	28	J, Q-3	ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	55	J, Q-3	ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	22	J, D-5	ng/kg dry	22	2/21/11	2/25/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	21	J, D-5	ng/kg dry	21	2/21/11	2/25/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	27	J, D-5	ng/kg dry	27	2/21/11	2/25/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	7.8	J, Q-3	ng/kg dry	0.99	2/21/11	2/25/11	CL DLM02.0



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12462C2SF

Lab ID: C110907-06

MD No:

Station ID: 12462C

Matrix: Surface Soil

D No: 69Q1 CAPE

Date Collected: 2/15/11 15:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
30402-14-3	Tetrachlorodibenzofuran (Total)	8.3	J, Q-3	ng/kg dry	0.99	2/21/11	2/25/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site**Contract Lab Case: 41017****Sample ID: 12462C2SFX****Lab ID: C110907-07****MD No:****Station ID: 12462C****Matrix: Surface Soil****D No: 69Q2 CAPE****Date Collected: 2/15/11 15:30**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	22		%		3/04/11	3/08/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	590		ng/kg dry	5.0	3/04/11	3/08/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	690		ng/kg dry	5.0	3/04/11	3/08/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	17		ng/kg dry	5.0	3/04/11	3/08/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	10 J, CLP33		ng/kg dry	5.0	3/04/11	3/08/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	42		ng/kg dry	5.0	3/04/11	3/08/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	29 J, CLP33		ng/kg dry	5.0	3/04/11	3/08/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	17		ng/kg dry	5.0	3/04/11	3/08/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	19 J, CLP33		ng/kg dry	5.0	3/04/11	3/08/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	3.2 J, CLP01		ng/kg dry	5.0	3/04/11	3/08/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	2.7 J, CLP01		ng/kg dry	5.0	3/04/11	3/08/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	1.6 J, CLP01		ng/kg dry	5.0	3/04/11	3/08/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	21		ng/kg dry	5.0	3/04/11	3/08/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	5.2		ng/kg dry	5.0	3/04/11	3/08/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.28 U, CLP18		ng/kg dry	1.0	3/04/11	3/08/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.99 U		ng/kg dry	1.0	3/04/11	3/08/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	1400 J, Q-3		ng/kg dry	5.0	3/04/11	3/08/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	1200 J, Q-3		ng/kg dry	5.0	3/04/11	3/08/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	320 J, Q-3		ng/kg dry	5.0	3/04/11	3/08/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	450 J, Q-3		ng/kg dry	5.0	3/04/11	3/08/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	5500 J, CLP02		ng/kg dry	10	3/04/11	3/08/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	430		ng/kg dry	10	3/04/11	3/08/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	34 J, Q-3		ng/kg dry	5.0	3/04/11	3/08/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	73 J, Q-3		ng/kg dry	5.0	3/04/11	3/08/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	29 J, D-5		ng/kg dry	29	3/04/11	3/08/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	28 J, D-5		ng/kg dry	28	3/04/11	3/08/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	34 J, D-5		ng/kg dry	34	3/04/11	3/08/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	34 J, Q-3		ng/kg dry	1.0	3/04/11	3/08/11	CL DLM02.0



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980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12462C2SFX

Lab ID: C110907-07

MD No:

Station ID: 12462C

Matrix: Surface Soil

D No: 69Q2 CAPE

Date Collected: 2/15/11 15:30

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	12	J, Q-3	ng/kg dry	1.0	3/04/11	3/08/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin**Project: 11-0207, Kerr-McGee Chemical (Columbus) Site****Contract Lab Case: 41017****Sample ID:** 12462GA1SF**Lab ID:** C110907-08**MD No:****Station ID:** 12462GA1**Matrix:** Surface Soil**D No:** 69Q3 CAPE**Date Collected:** 2/15/11 14:20

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	28		%		2/21/11	2/25/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	750		ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	150		ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	8.7		ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	9.7	J, CLP33	ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	11	J, CLP33	ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	46	J, CLP33	ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	4.7	J, CLP01, CLP33	ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	26	J, CLP33	ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	1.8	J, CLP01, CLP33	ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	3.4	J, CLP01	ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.93	J, CLP01	ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	6.0	J, CLP33	ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	2.3	J, CLP01	ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.33	U	ng/kg dry	0.99	2/21/11	2/25/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.68	U, CLP18	ng/kg dry	0.99	2/21/11	2/25/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	1700	J, Q-3	ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	440	J, Q-3	ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	350	J, Q-3	ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	180	J, Q-3	ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	7100	J, CLP02	ng/kg dry	9.9	2/21/11	2/25/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	360		ng/kg dry	9.9	2/21/11	2/25/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	31	J, Q-3	ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	30	J, Q-3	ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	16	J, D-5	ng/kg dry	16	2/21/11	2/25/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	16	J, D-5	ng/kg dry	16	2/21/11	2/25/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	26	J, D-5	ng/kg dry	26	2/21/11	2/25/11	CL DLM02.0



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980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin**Project: 11-0207, Kerr-McGee Chemical (Columbus) Site****Contract Lab Case: 41017**Sample ID: 12462GA1SFLab ID: C110907-08

MD No:

Station ID: 12462GA1

Matrix: Surface Soil

D No: 69Q3 CAPE

Date Collected: 2/15/11 14:20

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
41903-57-5	Tetrachlorodibenzodioxin (Total)	1.6	J, Q-3	ng/kg dry	0.99	2/21/11	2/25/11	CL DLM02.0
30402-14-3	Tetrachlorodibenzofuran (Total)	2.6	J, Q-3	ng/kg dry	0.99	2/21/11	2/25/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin**Project: 11-0207, Kerr-McGee Chemical (Columbus) Site****Contract Lab Case: 41017****Sample ID: 12462GB1SF****Lab ID: C110907-09****MD No:****Station ID: 12462GB1****Matrix: Surface Soil****D No: 69Q4 CAPE****Date Collected: 2/15/11 14:35**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	25		%		2/21/11	2/25/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	190		ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	49		ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	2.6	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	2.4	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	3.1	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	16		ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	1.4	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	8.3		ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.63	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	1.0	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.27	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	2.0	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	0.40	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.23	U	ng/kg dry	0.96	2/21/11	2/25/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.67	U	ng/kg dry	0.96	2/21/11	2/25/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	430	J, Q-3	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	130	J, Q-3	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	110	J, Q-3	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	46	J, Q-3	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	2000		ng/kg dry	9.6	2/21/11	2/25/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	100		ng/kg dry	9.6	2/21/11	2/25/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	10	J, Q-3	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	7.9	J, Q-3	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	5.0	J, D-5	ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	4.5	J, D-5	ng/kg dry	4.5	2/21/11	2/25/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	7.8	J, D-5	ng/kg dry	7.8	2/21/11	2/25/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	0.65	J, Q-3	ng/kg dry	0.96	2/21/11	2/25/11	CL DLM02.0



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980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12462GB1SF

Lab ID: C110907-09

MD No:

Station ID: 12462GB1

Matrix: Surface Soil

D No: 69Q4 CAPE

Date Collected: 2/15/11 14:35

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	1.9	J, Q-3	ng/kg dry	0.96	2/21/11	2/25/11	CL DLM02.0



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Region 4 Science and Ecosystem Support Division

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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site**Contract Lab Case: 41017****Sample ID:** 12463GB2SF**Lab ID:** C110907-10**MD No:****Station ID:** 12462GB2**Matrix:** Surface Soil**D No:** 69Q5 CAPE**Date Collected:** 2/15/11 15:25

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	24		%		2/21/11	2/25/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	640		ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	210		ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	9.2		ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	8.4 J, CLP33		ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	13 J, CLP33		ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	30 J, CLP33		ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	6.1 J, CLP33		ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	20 J, CLP33		ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	1.7 J, CLP01, CLP33		ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	2.7 J, CLP01		ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.96 J, CLP01		ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	7.6 J, CLP33		ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	2.3 J, CLP01		ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.20 U		ng/kg dry	0.99	2/21/11	2/25/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.57 U		ng/kg dry	0.99	2/21/11	2/25/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	1500 J, Q-3		ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	480 J, Q-3		ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	300 J, Q-3		ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	200 J, Q-3		ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	5600 J, CLP02		ng/kg dry	9.9	2/21/11	2/25/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	310		ng/kg dry	9.9	2/21/11	2/25/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	29 J, Q-3		ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	37 J, Q-3		ng/kg dry	5.0	2/21/11	2/25/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	15 J, D-5		ng/kg dry	15	2/21/11	2/25/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	15 J, D-5		ng/kg dry	15	2/21/11	2/25/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	23 J, D-5		ng/kg dry	23	2/21/11	2/25/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	2.3 J, Q-3		ng/kg dry	0.99	2/21/11	2/25/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12463GB2SF

Lab ID: C110907-10

MD No:

Station ID: 12462GB2

Matrix: Surface Soil

D No: 69Q5 CAPE

Date Collected: 2/15/11 15:25

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	4.9	J, Q-3	ng/kg dry	0.99	2/21/11	2/25/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin**Project: 11-0207, Kerr-McGee Chemical (Columbus) Site****Contract Lab Case: 41017****Sample ID:** 12463GC1SF**Lab ID:** C110907-11**MD No:****Station ID:** 12462GC1**Matrix:** Surface Soil**D No:** 69Q7 CAPE**Date Collected:** 2/15/11 14:50

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	17		%		2/21/11	2/25/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	140		ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	27		ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	1.9	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	1.5	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	1.6	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	4.5	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	0.93	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	3.0	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.44	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	0.53	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.27	U	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	1.2	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	0.52	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.18	U	ng/kg dry	0.96	2/21/11	2/25/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.53	U	ng/kg dry	0.96	2/21/11	2/25/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	340	J, Q-3	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	81	J, Q-3	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	49	J, Q-3	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	28	J, Q-3	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	1700		ng/kg dry	9.6	2/21/11	2/25/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	69		ng/kg dry	9.6	2/21/11	2/25/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	5.2	J, Q-3	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	6.0	J, Q-3	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	3.2	J, D-5	ng/kg dry	3.2	2/21/11	2/25/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	2.8	J, D-5	ng/kg dry	2.8	2/21/11	2/25/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	4.4	J, D-5	ng/kg dry	4.4	2/21/11	2/25/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	0.18	U, J, Q-3	ng/kg dry	0.96	2/21/11	2/25/11	CL DLM02.0



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Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12463GC1SF

Lab ID: C110907-11

MD No:

Station ID: 12462GC1

Matrix: Surface Soil

D No: 69Q7 CAPE

Date Collected: 2/15/11 14:50

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	1.9	J, Q-3	ng/kg dry	0.96	2/21/11	2/25/11	CL DLM02.0



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Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site**Contract Lab Case: 41017****Sample ID:** 12462GC2SF**Lab ID:** C110907-12**MD No:****Station ID:** 12462GC2**Matrix:** Surface Soil**D No:** 69Q6 CAPE**Date Collected:** 2/15/11 15:05

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	24		%		2/21/11	2/25/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	460		ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	110		ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	6.2		ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	5.6		ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	8.7		ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	28		ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	3.9 J, CLP01		ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	17		ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	1.2 J, CLP01		ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	2.5 J, CLP01		ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.67 J, CLP01		ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	5.1		ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	1.8 J, CLP01		ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.32 J, CLP01		ng/kg dry	0.98	2/21/11	2/25/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.75 U		ng/kg dry	0.98	2/21/11	2/25/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	1200 J, Q-3		ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	290 J, Q-3		ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	240 J, Q-3		ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	120 J, Q-3		ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	4400 J, CLP02		ng/kg dry	9.8	2/21/11	2/25/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	220		ng/kg dry	9.8	2/21/11	2/25/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	30 J, Q-3		ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	26 J, Q-3		ng/kg dry	4.9	2/21/11	2/25/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	12 J, D-5		ng/kg dry	12	2/21/11	2/25/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	11 J, D-5		ng/kg dry	11	2/21/11	2/25/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	18 J, D-5		ng/kg dry	18	2/21/11	2/25/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	2.5 J, Q-3		ng/kg dry	0.98	2/21/11	2/25/11	CL DLM02.0



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Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12462GC2SF

Lab ID: C110907-12

MD No:

Station ID: 12462GC2

Matrix: Surface Soil

D No: 69Q6 CAPE

Date Collected: 2/15/11 15:05

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	5.4	J, Q-3	ng/kg dry	0.98	2/21/11	2/25/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site**Contract Lab Case: 41017****Sample ID: 12470A2SF****Lab ID: C110907-13****MD No:****Station ID: 12470****Matrix: Surface Soil****D No: 69Q8 CAPE****Date Collected: 2/15/11 11:55**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	11		%		2/21/11	3/03/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	3600		ng/kg dry	24	2/21/11	3/03/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	350		ng/kg dry	24	2/21/11	3/03/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	28		ng/kg dry	24	2/21/11	3/03/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	11	J, CLP33, CLP01	ng/kg dry	24	2/21/11	3/03/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	18	J, CLP01, CLP33	ng/kg dry	24	2/21/11	3/03/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	47	J, CLP33	ng/kg dry	24	2/21/11	3/03/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	4.9	J, CLP01, CLP33	ng/kg dry	24	2/21/11	3/03/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	22	J, CLP01, CLP33	ng/kg dry	24	2/21/11	3/03/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	4.1	J, CLP01, CLP33	ng/kg dry	24	2/21/11	3/03/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	1.8	J, CLP01	ng/kg dry	24	2/21/11	3/03/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	1.4	U, CLP18	ng/kg dry	24	2/21/11	3/03/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	9.4	J, CLP01, CLP33	ng/kg dry	24	2/21/11	3/03/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	3.4	J, CLP01	ng/kg dry	24	2/21/11	3/03/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.64	U	ng/kg dry	4.7	2/21/11	3/03/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.89	U	ng/kg dry	4.7	2/21/11	3/03/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	12000	J, Q-3	ng/kg dry	24	2/21/11	3/03/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	1700	J, Q-3	ng/kg dry	24	2/21/11	3/03/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	720	J, Q-3	ng/kg dry	24	2/21/11	3/03/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	430	J, Q-3	ng/kg dry	24	2/21/11	3/03/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	49000	J, CLP02	ng/kg dry	47	2/21/11	3/03/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	2000		ng/kg dry	47	2/21/11	3/03/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	30	J, Q-3	ng/kg dry	24	2/21/11	3/03/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	36	J, Q-3	ng/kg dry	24	2/21/11	3/03/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	26	J, D-5	ng/kg dry	26	2/21/11	3/03/11	CL DLM02.0



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Region 4 Science and Ecosystem Support Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin**Project: 11-0207, Kerr-McGee Chemical (Columbus) Site****Contract Lab Case: 41017****Sample ID:** 12470A2SF**Lab ID:** C110907-13**MD No:****Station ID:** 12470**Matrix:** Surface Soil**D No:** 69Q8 CAPE**Date Collected:** 2/15/11 11:55

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	27	J, D-5	ng/kg dry	27	2/21/11	3/03/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	71	J, D-5	ng/kg dry	71	2/21/11	3/03/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	0.64	U, J, Q-3	ng/kg dry	4.7	2/21/11	3/03/11	CL DLM02.0
30402-14-3	Tetrachlorodibenzofuran (Total)	2.6	J, Q-3	ng/kg dry	4.7	2/21/11	3/03/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12484A2SF

Lab ID: C110907-14

MD No:

Station ID: 12484

Matrix: Surface Soil

D No: 69Q9 CAPE

Date Collected: 2/14/11 16:10

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	19		%		2/21/11	3/03/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	770		ng/kg dry	4.8	2/21/11	3/03/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	160		ng/kg dry	4.8	2/21/11	3/03/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	11		ng/kg dry	4.8	2/21/11	3/03/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	5.8	J, CLP33	ng/kg dry	4.8	2/21/11	3/03/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	16	J, CLP33	ng/kg dry	4.8	2/21/11	3/03/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	17	J, CLP33	ng/kg dry	4.8	2/21/11	3/03/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	6.4	J, CLP33	ng/kg dry	4.8	2/21/11	3/03/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	13	J, CLP33	ng/kg dry	4.8	2/21/11	3/03/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	2.4	J, CLP01, CLP33	ng/kg dry	4.8	2/21/11	3/03/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	2.1	J, CLP01	ng/kg dry	4.8	2/21/11	3/03/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.66	J, CLP01	ng/kg dry	4.8	2/21/11	3/03/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	7.3	J, CLP33	ng/kg dry	4.8	2/21/11	3/03/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	3.5	J, CLP01	ng/kg dry	4.8	2/21/11	3/03/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.28	U, CLP18	ng/kg dry	0.96	2/21/11	3/03/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.91	U	ng/kg dry	0.96	2/21/11	3/03/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	2200	J, Q-3	ng/kg dry	4.8	2/21/11	3/03/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	480	J, Q-3	ng/kg dry	4.8	2/21/11	3/03/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	190	J, Q-3	ng/kg dry	4.8	2/21/11	3/03/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	200	J, Q-3	ng/kg dry	4.8	2/21/11	3/03/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	10000	J, CLP02	ng/kg dry	9.6	2/21/11	3/03/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	410		ng/kg dry	9.6	2/21/11	3/03/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	18	J, Q-3	ng/kg dry	4.8	2/21/11	3/03/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	31	J, Q-3	ng/kg dry	4.8	2/21/11	3/03/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	15	J, D-5	ng/kg dry	15	2/21/11	3/03/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	14	J, D-5	ng/kg dry	14	2/21/11	3/03/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	23	J, D-5	ng/kg dry	23	2/21/11	3/03/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	2.4	J, Q-3	ng/kg dry	0.96	2/21/11	3/03/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12484A2SF

Lab ID: C110907-14

MD No:

Station ID: 12484

Matrix: Surface Soil

D No: 69Q9 CAPE

Date Collected: 2/14/11 16:10

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	6.2	J, Q-3	ng/kg dry	0.96	2/21/11	3/03/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site**Contract Lab Case: 41017****Sample ID:** 12486A2SF**Lab ID:** C110907-15**MD No:****Station ID:** 12486**Matrix:** Surface Soil**D No:** 69R0 CAPE**Date Collected:** 2/14/11 16:50

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	17		%		2/21/11	3/03/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	2100		ng/kg dry	25	2/21/11	3/03/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	360		ng/kg dry	25	2/21/11	3/03/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	29		ng/kg dry	25	2/21/11	3/03/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	14	J, CLP01, CLP33	ng/kg dry	25	2/21/11	3/03/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	38		ng/kg dry	25	2/21/11	3/03/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	42	J, CLP33	ng/kg dry	25	2/21/11	3/03/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	15	J, CLP01	ng/kg dry	25	2/21/11	3/03/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	23	J, CLP33, CLP01	ng/kg dry	25	2/21/11	3/03/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	8.2	J, CLP01	ng/kg dry	25	2/21/11	3/03/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	4.0	J, CLP01	ng/kg dry	25	2/21/11	3/03/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	2.2	J, CLP01	ng/kg dry	25	2/21/11	3/03/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	19	J, CLP01	ng/kg dry	25	2/21/11	3/03/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	8.2	J, CLP01	ng/kg dry	25	2/21/11	3/03/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	1.1	U	ng/kg dry	4.9	2/21/11	3/03/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	1.8	U	ng/kg dry	4.9	2/21/11	3/03/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	2100	J, Q-3	ng/kg dry	25	2/21/11	3/03/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	1400	J, Q-3	ng/kg dry	25	2/21/11	3/03/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	480	J, Q-3	ng/kg dry	25	2/21/11	3/03/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	490	J, Q-3	ng/kg dry	25	2/21/11	3/03/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	32000	J, CLP02	ng/kg dry	49	2/21/11	3/03/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	1300		ng/kg dry	49	2/21/11	3/03/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	40	J, Q-3	ng/kg dry	25	2/21/11	3/03/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	83	J, Q-3	ng/kg dry	25	2/21/11	3/03/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	36	J, D-5	ng/kg dry	36	2/21/11	3/03/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	34	J, D-5	ng/kg dry	34	2/21/11	3/03/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	59	J, D-5	ng/kg dry	59	2/21/11	3/03/11	CL DLM02.0



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980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin**Project: 11-0207, Kerr-McGee Chemical (Columbus) Site****Contract Lab Case: 41017**Sample ID: 12486A2SFLab ID: C110907-15

MD No:

Station ID: 12486

Matrix: Surface Soil

D No: 69R0 CAPE

Date Collected: 2/14/11 16:50

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
41903-57-5	Tetrachlorodibenzodioxin (Total)	5.2	J, Q-3	ng/kg dry	4.9	2/21/11	3/03/11	CL DLM02.0
30402-14-3	Tetrachlorodibenzofuran (Total)	13	J, Q-3	ng/kg dry	4.9	2/21/11	3/03/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin**Project: 11-0207, Kerr-McGee Chemical (Columbus) Site****Contract Lab Case: 41017****Sample ID: 12490A2SF****Lab ID: C110907-16****MD No:****Station ID: 12490****Matrix: Surface Soil****D No: 69R1 CAPE****Date Collected: 2/15/11 9:05**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	24		%		2/21/11	3/03/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	220		ng/kg dry	4.9	2/21/11	3/03/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	29		ng/kg dry	4.9	2/21/11	3/03/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	2.6	J, CLP01	ng/kg dry	4.9	2/21/11	3/03/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	1.9	J, CLP01	ng/kg dry	4.9	2/21/11	3/03/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	2.2	J, CLP01	ng/kg dry	4.9	2/21/11	3/03/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	4.7	J, CLP01	ng/kg dry	4.9	2/21/11	3/03/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	1.1	J, CLP01	ng/kg dry	4.9	2/21/11	3/03/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	3.4	J, CLP01	ng/kg dry	4.9	2/21/11	3/03/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.47	U	ng/kg dry	4.9	2/21/11	3/03/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	0.48	J, CLP01	ng/kg dry	4.9	2/21/11	3/03/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.30	U	ng/kg dry	4.9	2/21/11	3/03/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	1.5	J, CLP01	ng/kg dry	4.9	2/21/11	3/03/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	0.53	U, CLP18	ng/kg dry	4.9	2/21/11	3/03/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.21	U	ng/kg dry	0.98	2/21/11	3/03/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.68	U	ng/kg dry	0.98	2/21/11	3/03/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	640	J, Q-3	ng/kg dry	4.9	2/21/11	3/03/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	100	J, Q-3	ng/kg dry	4.9	2/21/11	3/03/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	52	J, Q-3	ng/kg dry	4.9	2/21/11	3/03/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	34	J, Q-3	ng/kg dry	4.9	2/21/11	3/03/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	3200		ng/kg dry	9.8	2/21/11	3/03/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	98		ng/kg dry	9.8	2/21/11	3/03/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	5.6	J, Q-3	ng/kg dry	4.9	2/21/11	3/03/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	6.7	J, Q-3	ng/kg dry	4.9	2/21/11	3/03/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	3.8	J, D-5	ng/kg dry	3.8	2/21/11	3/03/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	3.4	J, D-5	ng/kg dry	3.4	2/21/11	3/03/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	5.9	J, D-5	ng/kg dry	5.9	2/21/11	3/03/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	0.47	J, Q-3	ng/kg dry	0.98	2/21/11	3/03/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12490A2SF

Lab ID: C110907-16

MD No:

Station ID: 12490

Matrix: Surface Soil

D No: 69R1 CAPE

Date Collected: 2/15/11 9:05

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	2.5	J, Q-3	ng/kg dry	0.98	2/21/11	3/03/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin**Project: 11-0207, Kerr-McGee Chemical (Columbus) Site****Contract Lab Case: 41017****Sample ID: 12490A2SFX****Lab ID: C110907-17****MD No:****Station ID: 12490****Matrix: Surface Soil****D No: 69R2 CAPE****Date Collected: 2/15/11 9:10**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	25		%		2/21/11	2/25/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	180		ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	22		ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	2.2	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	1.4	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	1.8	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	3.7	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	0.84	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	2.5	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.45	U	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	0.34	U, CLP18	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.29	U	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	1.2	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	0.58	J, CLP01	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.19	U	ng/kg dry	0.96	2/21/11	2/25/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.56	U, CLP18	ng/kg dry	0.96	2/21/11	2/25/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	490	J, Q-3	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	78	J, Q-3	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	44	J, Q-3	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	27	J, Q-3	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	2300		ng/kg dry	9.6	2/21/11	2/25/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	73		ng/kg dry	9.6	2/21/11	2/25/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	4.2	J, Q-3	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	5.9	J, Q-3	ng/kg dry	4.8	2/21/11	2/25/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	3.1	J, D-5	ng/kg dry	3.1	2/21/11	2/25/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	2.7	J, D-5	ng/kg dry	2.7	2/21/11	2/25/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	4.7	J, D-5	ng/kg dry	4.7	2/21/11	2/25/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	0.67	J, Q-3	ng/kg dry	0.96	2/21/11	2/25/11	CL DLM02.0



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980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12490A2SFX

Lab ID: C110907-17

MD No:

Station ID: 12490

Matrix: Surface Soil

D No: 69R2 CAPE

Date Collected: 2/15/11 9:10

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
30402-14-3	Tetrachlorodibenzofuran (Total)	2.2	J, Q-3	ng/kg dry	0.96	2/21/11	2/25/11	CL DLM02.0



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Dioxin**Project: 11-0207, Kerr-McGee Chemical (Columbus) Site****Contract Lab Case: 41017****Sample ID: 12491A2SF****Lab ID: C110907-18****MD No:****Station ID: 12491****Matrix: Surface Soil****D No: 69R3 CAPE****Date Collected: 2/15/11 9:50**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	20		%		2/22/11	3/02/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	160		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	17		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	1.6	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	2.0	U, CLP18	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	1.2	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	3.6	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	0.59	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	3.1	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.29	U	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	0.65	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.16	U	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	0.89	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	0.42	U, CLP18	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.14	U, CLP18	ng/kg dry	0.97	2/22/11	3/02/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.46	U	ng/kg dry	0.97	2/22/11	3/02/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	550	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	62	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	48	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	21	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	1700		ng/kg dry	9.7	2/22/11	3/02/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	60		ng/kg dry	9.7	2/22/11	3/02/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	4.9	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	3.7	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	2.9	J, D-5	ng/kg dry	2.9	2/22/11	3/02/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	2.9	J, D-5	ng/kg dry	2.9	2/22/11	3/02/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	4.4	J, D-5	ng/kg dry	4.4	2/22/11	3/02/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	0.72	J, Q-3	ng/kg dry	0.97	2/22/11	3/02/11	CL DLM02.0



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Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12491A2SF

Lab ID: C110907-18

MD No:

Station ID: 12491

Matrix: Surface Soil

D No: 69R3 CAPE

Date Collected: 2/15/11 9:50

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	1.8	J, Q-3	ng/kg dry	0.97	2/22/11	3/02/11	CL DLM02.0



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Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site**Contract Lab Case: 41017****Sample ID: 12520A2SF****Lab ID: C110907-19****MD No:****Station ID: 12520****Matrix: Surface Soil****D No: 69R4 CAPE****Date Collected: 2/15/11 10:40**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	20		%		2/22/11	3/02/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	320		ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	37		ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	3.2	J, CLP01	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	3.5	J, CLP01	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	2.4	J, CLP01	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	7.1		ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	1.1	J, CLP01	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	5.5		ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.75	J, CLP01	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	1.1	J, CLP01	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.39	J, CLP01	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	1.6	J, CLP01	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	0.67	J, CLP01	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.21	J, CLP01	ng/kg dry	0.97	2/22/11	3/02/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.88	U	ng/kg dry	0.97	2/22/11	3/02/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	1400	J, Q-3	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	140	J, Q-3	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	96	J, Q-3	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	39	J, Q-3	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	4400	J, CLP02	ng/kg dry	9.7	2/22/11	3/02/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	150		ng/kg dry	9.7	2/22/11	3/02/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	7.7	J, Q-3	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	6.8	J, Q-3	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	5.5	J, D-5	ng/kg dry	5.5	2/22/11	3/02/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	5.3	J, D-5	ng/kg dry	5.3	2/22/11	3/02/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	8.8	J, D-5	ng/kg dry	8.8	2/22/11	3/02/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	1.2	J, Q-3	ng/kg dry	0.97	2/22/11	3/02/11	CL DLM02.0



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Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12520A2SF

Lab ID: C110907-19

MD No:

Station ID: 12520

Matrix: Surface Soil

D No: 69R4 CAPE

Date Collected: 2/15/11 10:40

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
30402-14-3	Tetrachlorodibenzofuran (Total)	4.4	J, Q-3	ng/kg dry	0.97	2/22/11	3/02/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin**Project: 11-0207, Kerr-McGee Chemical (Columbus) Site****Contract Lab Case: 41017****Sample ID: 12522A2SF****Lab ID: C110907-20****MD No:****Station ID: 12522****Matrix: Surface Soil****D No: 69R5 CAPE****Date Collected: 2/15/11 10:15**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	23		%		2/22/11	3/02/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	250		ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	51		ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	3.4	J, CLP01	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	3.1	J, CLP01	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	7.9		ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	7.6		ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	5.6		ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	5.7		ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	1.6	J, CLP01	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	1.9	J, CLP01	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	4.1	J, CLP01	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	6.7		ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	7.0		ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.61	U, CLP18	ng/kg dry	0.96	2/22/11	3/02/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	4.3	CLP10	ng/kg dry	0.96	2/22/11	3/02/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	720	J, Q-3	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	140	J, Q-3	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	98	J, Q-3	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	89	J, Q-3	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	3200		ng/kg dry	9.6	2/22/11	3/02/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	120		ng/kg dry	9.6	2/22/11	3/02/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	36	J, Q-3	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	78	J, Q-3	ng/kg dry	4.8	2/22/11	3/02/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	18	J, D-5	ng/kg dry	18	2/22/11	3/02/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	11	J, D-5	ng/kg dry	11	2/22/11	3/02/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	13	J, D-5	ng/kg dry	13	2/22/11	3/02/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	38	J, Q-3	ng/kg dry	0.96	2/22/11	3/02/11	CL DLM02.0



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980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12522A2SF

Lab ID: C110907-20

MD No:

Station ID: 12522

Matrix: Surface Soil

D No: 69R5 CAPE

Date Collected: 2/15/11 10:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
30402-14-3	Tetrachlorodibenzofuran (Total)	120	J, Q-3	ng/kg dry	0.96	2/22/11	3/02/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin**Project: 11-0207, Kerr-McGee Chemical (Columbus) Site****Contract Lab Case: 41017****Sample ID: 12621A2SF****Lab ID: C110907-21****MD No:****Station ID: 12621****Matrix: Surface Soil****D No: 69R6 CAPE****Date Collected: 2/15/11 9:45**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	18		%		2/22/11	3/02/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	450		ng/kg dry	5.0	2/22/11	3/02/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	87		ng/kg dry	5.0	2/22/11	3/02/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	6.1		ng/kg dry	5.0	2/22/11	3/02/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	3.8	J, CLP01	ng/kg dry	5.0	2/22/11	3/02/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	6.9		ng/kg dry	5.0	2/22/11	3/02/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	11		ng/kg dry	5.0	2/22/11	3/02/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	2.7	J, CLP01	ng/kg dry	5.0	2/22/11	3/02/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	8.8		ng/kg dry	5.0	2/22/11	3/02/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	1.5	J, CLP01	ng/kg dry	5.0	2/22/11	3/02/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	1.4	J, CLP01	ng/kg dry	5.0	2/22/11	3/02/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.49	U, CLP18	ng/kg dry	5.0	2/22/11	3/02/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	4.0	J, CLP01	ng/kg dry	5.0	2/22/11	3/02/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	1.8	J, CLP01	ng/kg dry	5.0	2/22/11	3/02/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.17	U	ng/kg dry	0.99	2/22/11	3/02/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.76	U	ng/kg dry	0.99	2/22/11	3/02/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	1200	J, Q-3	ng/kg dry	5.0	2/22/11	3/02/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	270	J, Q-3	ng/kg dry	5.0	2/22/11	3/02/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	120	J, Q-3	ng/kg dry	5.0	2/22/11	3/02/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	100	J, Q-3	ng/kg dry	5.0	2/22/11	3/02/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	5500	J, CLP02	ng/kg dry	9.9	2/22/11	3/02/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	240		ng/kg dry	9.9	2/22/11	3/02/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	12	J, Q-3	ng/kg dry	5.0	2/22/11	3/02/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	20	J, Q-3	ng/kg dry	5.0	2/22/11	3/02/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	8.8	J, D-5	ng/kg dry	8.8	2/22/11	3/02/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	8.1	J, D-5	ng/kg dry	8.1	2/22/11	3/02/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	13	J, D-5	ng/kg dry	13	2/22/11	3/02/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	1.8	J, Q-3	ng/kg dry	0.99	2/22/11	3/02/11	CL DLM02.0



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Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12621A2SF

Lab ID: C110907-21

MD No:

Station ID: 12621

Matrix: Surface Soil

D No: 69R6 CAPE

Date Collected: 2/15/11 9:45

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	6.5	J, Q-3	ng/kg dry	0.99	2/22/11	3/02/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin**Project: 11-0207, Kerr-McGee Chemical (Columbus) Site****Contract Lab Case: 41017****Sample ID: 12622A2SF****Lab ID: C110907-22****MD No:****Station ID: 12622****Matrix: Surface Soil****D No: 69R7 CAPE****Date Collected: 2/15/11 9:20**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	17		%		2/22/11	3/02/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	380		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	73		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	4.7	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	3.0	U, CLP18	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	5.9		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	11		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	2.3	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	6.2		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	1.3	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	0.98	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.52	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	3.2	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	1.3	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.15	U	ng/kg dry	0.99	2/22/11	3/02/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.77	U, CLP18	ng/kg dry	0.99	2/22/11	3/02/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	970	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	240	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	96	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	92	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	4700	J, CLP02	ng/kg dry	9.9	2/22/11	3/02/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	200		ng/kg dry	9.9	2/22/11	3/02/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	9.5	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	16	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	7.0	J, D-5	ng/kg dry	7.0	2/22/11	3/02/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	6.4	J, D-5	ng/kg dry	6.4	2/22/11	3/02/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	11	J, D-5	ng/kg dry	11	2/22/11	3/02/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	1.6	J, Q-3	ng/kg dry	0.99	2/22/11	3/02/11	CL DLM02.0



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Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12622A2SF

Lab ID: C110907-22

MD No:

Station ID: 12622

Matrix: Surface Soil

D No: 69R7 CAPE

Date Collected: 2/15/11 9:20

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	5.6	J, Q-3	ng/kg dry	0.99	2/22/11	3/02/11	CL DLM02.0



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Dioxin**Project: 11-0207, Kerr-McGee Chemical (Columbus) Site****Contract Lab Case: 41017****Sample ID: 12623A2SF****Lab ID: C110907-23****MD No:****Station ID: 12623****Matrix: Surface Soil****D No: 69R8 CAPE****Date Collected: 2/15/11 9:00**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	20		%		2/22/11	3/02/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	1600		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	290		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	26		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	13	J, CLP33	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	37		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	48	J, CLP33	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	15		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	15	J, CLP33	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	10		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	2.2	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	2.9	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	24	J, CLP33	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	24		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.25	U, CLP18	ng/kg dry	0.98	2/22/11	3/02/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	1.3	U, B-4	ng/kg dry	0.98	2/22/11	3/02/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	4400	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	1300	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	370	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	640	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	21000	J, CLP02	ng/kg dry	9.8	2/22/11	3/02/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	1100		ng/kg dry	9.8	2/22/11	3/02/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	25	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	280	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	47	J, D-5	ng/kg dry	47	2/22/11	3/02/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	38	J, D-5	ng/kg dry	38	2/22/11	3/02/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	53	J, D-5	ng/kg dry	53	2/22/11	3/02/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	4.6	J, Q-3	ng/kg dry	0.98	2/22/11	3/02/11	CL DLM02.0



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Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12623A2SF

Lab ID: C110907-23

MD No:

Station ID: 12623

Matrix: Surface Soil

D No: 69R8 CAPE

Date Collected: 2/15/11 9:00

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	54	J, Q-3	ng/kg dry	0.98	2/22/11	3/02/11	CL DLM02.0



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Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site**Contract Lab Case: 41017****Sample ID: 12624B2SF****Lab ID: C110907-24****MD No:****Station ID: 12624****Matrix: Surface Soil****D No: 69S0 CAPE****Date Collected: 2/14/11 15:30**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	16		%		2/22/11	3/02/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	1400		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	260		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	24		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	12 J, CLP33		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	36		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	32 J, CLP33		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	8.3		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	12 J, CLP33		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	8.1		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	1.7 U, CLP18		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	1.8 J, CLP01		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	14		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	7.9		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.30 U, CLP18		ng/kg dry	0.97	2/22/11	3/02/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.86 U		ng/kg dry	0.97	2/22/11	3/02/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	1400 J, Q-3		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	1200 J, Q-3		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	270 J, Q-3		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	480 J, Q-3		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	20000 J, CLP02		ng/kg dry	9.7	2/22/11	3/02/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	960		ng/kg dry	9.7	2/22/11	3/02/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	12 J, Q-3		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	56 J, Q-3		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	26 J, D-5		ng/kg dry	26	2/22/11	3/02/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	25 J, D-5		ng/kg dry	25	2/22/11	3/02/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	40 J, D-5		ng/kg dry	40	2/22/11	3/02/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	1.2 J, Q-3		ng/kg dry	0.97	2/22/11	3/02/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12624B2SF

Lab ID: C110907-24

MD No:

Station ID: 12624

Matrix: Surface Soil

D No: 69S0 CAPE

Date Collected: 2/14/11 15:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
30402-14-3	Tetrachlorodibenzofuran (Total)	5.7	J, Q-3	ng/kg dry	0.97	2/22/11	3/02/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin**Project: 11-0207, Kerr-McGee Chemical (Columbus) Site****Contract Lab Case: 41017****Sample ID: 12629A2SF****Lab ID: C110907-25****MD No:****Station ID: 12629****Matrix: Surface Soil****D No: 69S1 CAPE****Date Collected: 2/14/11 16:45**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	20		%		2/22/11	3/04/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	2500		ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	480		ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	39		ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	9.7	J, CLP01	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	53		ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	56		ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	14	J, CLP01	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	20	J, CLP01	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	13	J, CLP01	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	2.6	U, CLP18	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	2.6	J, CLP01	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	21	J, CLP01	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	9.4	U, CLP18	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.66	U	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	1.3	U	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	2500	J, Q-3	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	2000	J, Q-3	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	420	J, Q-3	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	740	J, Q-3	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	32000	J, CLP02	ng/kg dry	48	2/22/11	3/04/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	1800		ng/kg dry	48	2/22/11	3/04/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	23	J, Q-3	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	90	J, Q-3	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	39	J, D-5	ng/kg dry	39	2/22/11	3/04/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	35	J, D-5	ng/kg dry	35	2/22/11	3/04/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	65	J, D-5	ng/kg dry	65	2/22/11	3/04/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	0.66	U, J, Q-3	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0



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Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12629A2SF

Lab ID: C110907-25

MD No:

Station ID: 12629

Matrix: Surface Soil

D No: 69S1 CAPE

Date Collected: 2/14/11 16:45

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	8.6	J, Q-3	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site**Contract Lab Case: 41017****Sample ID: 12630A2SF****Lab ID: C110907-26****MD No:****Station ID: 12630****Matrix: Surface Soil****D No: 69S2 CAPE****Date Collected: 2/14/11 16:30**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	15		%		2/22/11	3/02/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	170		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	35		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	2.1	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	1.9	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	2.7	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	4.6	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	1.2	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	3.9	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.51	U, CLP18	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	0.78	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.27	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	1.7	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	0.86	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.12	U	ng/kg dry	0.98	2/22/11	3/02/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.61	U	ng/kg dry	0.98	2/22/11	3/02/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	460	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	99	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	49	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	39	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	2400		ng/kg dry	9.8	2/22/11	3/02/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	76		ng/kg dry	9.8	2/22/11	3/02/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	6.3	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	9.1	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	4.3	J, D-5	ng/kg dry	4.3	2/22/11	3/02/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	3.8	J, D-5	ng/kg dry	3.8	2/22/11	3/02/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	5.7	J, D-5	ng/kg dry	5.7	2/22/11	3/02/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	1.2	J, Q-3	ng/kg dry	0.98	2/22/11	3/02/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12630A2SF

Lab ID: C110907-26

MD No:

Station ID: 12630

Matrix: Surface Soil

D No: 69S2 CAPE

Date Collected: 2/14/11 16:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
30402-14-3	Tetrachlorodibenzofuran (Total)	3.9	J, Q-3	ng/kg dry	0.98	2/22/11	3/02/11	CL DLM02.0



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Dioxin**Project: 11-0207, Kerr-McGee Chemical (Columbus) Site****Contract Lab Case: 41017****Sample ID: 12633A2SF****Lab ID: C110907-27****MD No:****Station ID: 12633****Matrix: Surface Soil****D No: 69S3 CAPE****Date Collected: 2/15/11 8:22**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	16		%		2/22/11	3/02/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	120		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	43		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	1.5	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	1.4	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	2.1	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	4.9	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	1.1	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	3.5	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.25	U	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	0.69	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.35	U, CLP18	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	1.9	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	0.81	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.16	U, CLP18	ng/kg dry	0.99	2/22/11	3/02/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.67	U, CLP18	ng/kg dry	0.99	2/22/11	3/02/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	320	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	94	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	45	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	40	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	1300		ng/kg dry	9.9	2/22/11	3/02/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	56		ng/kg dry	9.9	2/22/11	3/02/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	6.5	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	11	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	4.1	J, D-5	ng/kg dry	4.1	2/22/11	3/02/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	3.3	J, D-5	ng/kg dry	3.3	2/22/11	3/02/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	4.7	J, D-5	ng/kg dry	4.7	2/22/11	3/02/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	1.7	J, Q-3	ng/kg dry	0.99	2/22/11	3/02/11	CL DLM02.0



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Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12633A2SF

Lab ID: C110907-27

MD No:

Station ID: 12633

Matrix: Surface Soil

D No: 69S3 CAPE

Date Collected: 2/15/11 8:22

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	5.4	J, Q-3	ng/kg dry	0.99	2/22/11	3/02/11	CL DLM02.0



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Dioxin**Project: 11-0207, Kerr-McGee Chemical (Columbus) Site****Contract Lab Case: 41017****Sample ID: 12634A2SF****Lab ID: C110907-28****MD No:****Station ID: 12634****Matrix: Surface Soil****D No: 69S4 CAPE****Date Collected: 2/15/11 8:40**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	15		%		2/22/11	3/03/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	290		ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	84		ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	4.0	J, CLP01	ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	2.8	J, CLP01	ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	4.5	J, CLP01	ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	9.4		ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	2.7	J, CLP01	ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	6.1		ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	1.1	J, CLP01	ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	1.4	J, CLP01	ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.35	J, CLP01	ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	3.9	J, CLP01	ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	2.8	J, CLP01	ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.45	U, CLP18	ng/kg dry	0.97	2/22/11	3/03/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.83	U	ng/kg dry	0.97	2/22/11	3/03/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	680	J, Q-3	ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	220	J, Q-3	ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	85	J, Q-3	ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	94	J, Q-3	ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	3100		ng/kg dry	9.7	2/22/11	3/03/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	170		ng/kg dry	9.7	2/22/11	3/03/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	14	J, Q-3	ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	54	J, Q-3	ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	9.0	J, D-5	ng/kg dry	9.0	2/22/11	3/03/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	7.6	J, D-5	ng/kg dry	7.6	2/22/11	3/03/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	11	J, D-5	ng/kg dry	11	2/22/11	3/03/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	5.2	J, Q-3	ng/kg dry	0.97	2/22/11	3/03/11	CL DLM02.0



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Region 4 Science and Ecosystem Support Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12634A2SF

Lab ID: C110907-28

MD No:

Station ID: 12634

Matrix: Surface Soil

D No: 69S4 CAPE

Date Collected: 2/15/11 8:40

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	43	J, Q-3	ng/kg dry	0.97	2/22/11	3/03/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site**Contract Lab Case: 41017****Sample ID:** 13723A2SF**Lab ID:** C110907-29**MD No:****Station ID:** 13723**Matrix:** Surface Soil**D No:** **69S5 CAPE****Date Collected:** 2/14/11 16:05

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	17		%		2/22/11	3/03/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	1600		ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	330		ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	27		ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	14 J, CLP33		ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	42		ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	40 J, CLP33		ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	11 J, CLP33		ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	16 J, CLP33		ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	7.1		ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	2.6 J, CLP01		ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	1.6 J, CLP01		ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	17		ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	9.3		ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.31 U, CLP18		ng/kg dry	0.96	2/22/11	3/03/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	1.8 CLP10		ng/kg dry	0.96	2/22/11	3/03/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	4200 J, Q-3		ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	1200 J, Q-3		ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	330 J, Q-3		ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	510 J, Q-3		ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	20000 J, CLP02		ng/kg dry	9.6	2/22/11	3/03/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	990		ng/kg dry	9.6	2/22/11	3/03/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	26 J, Q-3		ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	130 J, Q-3		ng/kg dry	4.8	2/22/11	3/03/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	32 J, D-5		ng/kg dry	32	2/22/11	3/03/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	30 J, D-5		ng/kg dry	30	2/22/11	3/03/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	46 J, D-5		ng/kg dry	46	2/22/11	3/03/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	5.6 J, Q-3		ng/kg dry	0.96	2/22/11	3/03/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13723A2SF

Lab ID: C110907-29

MD No:

Station ID: 13723

Matrix: Surface Soil

D No: 69S5 CAPE

Date Collected: 2/14/11 16:05

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
30402-14-3	Tetrachlorodibenzofuran (Total)	42	J, Q-3	ng/kg dry	0.96	2/22/11	3/03/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin**Project: 11-0207, Kerr-McGee Chemical (Columbus) Site****Contract Lab Case: 41017****Sample ID: 13743A2SF****Lab ID: C110907-30****MD No:****Station ID: 13743****Matrix: Surface Soil****D No: 69S6 CAPE****Date Collected: 2/15/11 16:25**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	18		%		2/22/11	3/04/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	280		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	58		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	3.9	J, CLP01	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	2.0	J, CLP01	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	5.2		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	7.5		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	1.8	J, CLP01	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	4.0	J, CLP01	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.97	J, CLP01	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	0.74	J, CLP01	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.29	J, CLP01	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	2.6	J, CLP01	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	1.1	J, CLP01	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.16	U, CLP18	ng/kg dry	0.98	2/22/11	3/04/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.58	U	ng/kg dry	0.98	2/22/11	3/04/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	770	J, Q-3	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	180	J, Q-3	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	68	J, Q-3	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	76	J, Q-3	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	3900		ng/kg dry	9.8	2/22/11	3/04/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	140		ng/kg dry	9.8	2/22/11	3/04/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	6.4	J, Q-3	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	13	J, Q-3	ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	5.5	J, D-5	ng/kg dry	5.5	2/22/11	3/04/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	5.0	J, D-5	ng/kg dry	5.0	2/22/11	3/04/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	8.3	J, D-5	ng/kg dry	8.3	2/22/11	3/04/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	0.91	J, Q-3	ng/kg dry	0.98	2/22/11	3/04/11	CL DLM02.0



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980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13743A2SF

Lab ID: C110907-30

MD No:

Station ID: 13743

Matrix: Surface Soil

D No: 69S6 CAPE

Date Collected: 2/15/11 16:25

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
30402-14-3	Tetrachlorodibenzofuran (Total)	3.7	J, Q-3	ng/kg dry	0.98	2/22/11	3/04/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin**Project: 11-0207, Kerr-McGee Chemical (Columbus) Site****Contract Lab Case: 41017****Sample ID: 13744A2SF****Lab ID: C110907-31****MD No:****Station ID: 13744A****Matrix: Surface Soil****D No: 69S7 CAPE****Date Collected: 2/14/11 15:50**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	26		%		2/22/11	3/03/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	1400		ng/kg dry	5.0	2/22/11	3/03/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	260		ng/kg dry	5.0	2/22/11	3/03/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	23		ng/kg dry	5.0	2/22/11	3/03/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	12 J, CLP33		ng/kg dry	5.0	2/22/11	3/03/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	34 J, CLP33		ng/kg dry	5.0	2/22/11	3/03/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	34 J, CLP33		ng/kg dry	5.0	2/22/11	3/03/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	7.6		ng/kg dry	5.0	2/22/11	3/03/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	12 J, CLP33		ng/kg dry	5.0	2/22/11	3/03/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	6.4		ng/kg dry	5.0	2/22/11	3/03/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	1.6 J, CLP01		ng/kg dry	5.0	2/22/11	3/03/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	1.3 J, CLP01		ng/kg dry	5.0	2/22/11	3/03/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	13		ng/kg dry	5.0	2/22/11	3/03/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	6.2		ng/kg dry	5.0	2/22/11	3/03/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.16 U, CLP18		ng/kg dry	0.99	2/22/11	3/03/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.78 U		ng/kg dry	0.99	2/22/11	3/03/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	4000 J, Q-3		ng/kg dry	5.0	2/22/11	3/03/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	1100 J, Q-3		ng/kg dry	5.0	2/22/11	3/03/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	290 J, Q-3		ng/kg dry	5.0	2/22/11	3/03/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	430 J, Q-3		ng/kg dry	5.0	2/22/11	3/03/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	19000 J, CLP02		ng/kg dry	9.9	2/22/11	3/03/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	830		ng/kg dry	9.9	2/22/11	3/03/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	17 J, Q-3		ng/kg dry	5.0	2/22/11	3/03/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	53 J, Q-3		ng/kg dry	5.0	2/22/11	3/03/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	23 J, D-5		ng/kg dry	23	2/22/11	3/03/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	23 J, D-5		ng/kg dry	23	2/22/11	3/03/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	38 J, D-5		ng/kg dry	38	2/22/11	3/03/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	1.8 J, Q-3		ng/kg dry	0.99	2/22/11	3/03/11	CL DLM02.0



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980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13744A2SF

Lab ID: C110907-31

MD No:

Station ID: 13744A

Matrix: Surface Soil

D No: 69S7 CAPE

Date Collected: 2/14/11 15:50

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
30402-14-3	Tetrachlorodibenzofuran (Total)	6.0	J, Q-3	ng/kg dry	0.99	2/22/11	3/03/11	CL DLM02.0



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin**Project: 11-0207, Kerr-McGee Chemical (Columbus) Site****Contract Lab Case: 41017****Sample ID: 13744B2SB12****Lab ID: C110907-32****MD No:****Station ID: 13744B****Matrix: Subsurface Soil****D No: 69S8 CAPE****Date Collected: 2/14/11 15:30**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	19		%		2/22/11	3/04/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	52		ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	11		ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	0.92	J, CLP01	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	0.30	J, CLP01	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	1.9	J, CLP01	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	1.2	J, CLP01	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	0.53	J, CLP01	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	0.62	J, CLP01	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.42	J, CLP01	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	0.14	U	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.086	J, CLP01	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	0.81	J, CLP01	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	0.38	J, CLP01	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.074	U	ng/kg dry	0.96	2/22/11	3/04/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.49	U	ng/kg dry	0.96	2/22/11	3/04/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	130	J, Q-3	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	39	J, Q-3	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	10	J, Q-3	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	18	J, Q-3	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	810		ng/kg dry	9.6	2/22/11	3/04/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	25		ng/kg dry	9.6	2/22/11	3/04/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	1.2	J, Q-3	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	2.9	J, Q-3	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	1.8	J, D-5	ng/kg dry	1.8	2/22/11	3/04/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	1.2	J, D-5	ng/kg dry	1.2	2/22/11	3/04/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	1.8	J, D-5	ng/kg dry	1.8	2/22/11	3/04/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	0.28	J, Q-3	ng/kg dry	0.96	2/22/11	3/04/11	CL DLM02.0



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13744B2SB12

Lab ID: C110907-32

MD No:

Station ID: 13744B

Matrix: Subsurface Soil

D No: 69S8 CAPE

Date Collected: 2/14/11 15:30

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	1.6	J, Q-3	ng/kg dry	0.96	2/22/11	3/04/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site**Contract Lab Case: 41017****Sample ID: 13744B2SF****Lab ID: C110907-33****MD No:****Station ID: 13744B****Matrix: Surface Soil****D No: 69S9 CAPE****Date Collected: 2/14/11 15:10**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	23		%		2/22/11	3/04/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	2700		ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	540		ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	50		ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	13	J, CLP01	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	74		ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	74		ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	19	J, CLP01	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	26		ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	16	J, CLP01	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	4.0	J, CLP01	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	2.7	J, CLP01	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	30		ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	14	J, CLP01	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.52	U	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	1.2	U	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	2700	J, Q-3	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	2200	J, Q-3	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	520	J, Q-3	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	950	J, Q-3	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	35000	J, CLP02	ng/kg dry	48	2/22/11	3/04/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	1600		ng/kg dry	48	2/22/11	3/04/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	35	J, Q-3	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	120	J, Q-3	ng/kg dry	24	2/22/11	3/04/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	50	J, D-5	ng/kg dry	50	2/22/11	3/04/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	45	J, D-5	ng/kg dry	45	2/22/11	3/04/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	78	J, D-5	ng/kg dry	78	2/22/11	3/04/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	0.98	J, Q-3	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13744B2SF

Lab ID: C110907-33

MD No:

Station ID: 13744B

Matrix: Surface Soil

D No: 69S9 CAPE

Date Collected: 2/14/11 15:10

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
30402-14-3	Tetrachlorodibenzofuran (Total)	10	J, Q-3	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site**Contract Lab Case: 41017****Sample ID: 13746A2SF****Lab ID: C110907-34****MD No:****Station ID: 13746****Matrix: Surface Soil****D No: 69T0 CAPE****Date Collected: 2/15/11 11:05**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	18		%		2/22/11	3/04/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	760		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	180		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	12		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	4.9		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	14		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	22		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	4.9		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	12		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	2.6 J, CLP01		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	1.7 J, CLP01		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.91 J, CLP01		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	8.2		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	3.2 J, CLP01		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.26 U, CLP18		ng/kg dry	0.97	2/22/11	3/04/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.86 U		ng/kg dry	0.97	2/22/11	3/04/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	1700 J, Q-3		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	600 J, Q-3		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	170 J, Q-3		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	230 J, Q-3		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	8100 J, CLP02		ng/kg dry	9.7	2/22/11	3/04/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	540		ng/kg dry	9.7	2/22/11	3/04/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	17 J, Q-3		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	47 J, Q-3		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	14 J, D-5		ng/kg dry	14	2/22/11	3/04/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	13 J, D-5		ng/kg dry	13	2/22/11	3/04/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	22 J, D-5		ng/kg dry	22	2/22/11	3/04/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	4.6 J, Q-3		ng/kg dry	0.97	2/22/11	3/04/11	CL DLM02.0



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13746A2SF

Lab ID: C110907-34

MD No:

Station ID: 13746

Matrix: Surface Soil

D No: 69T0 CAPE

Date Collected: 2/15/11 11:05

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	12	J, Q-3	ng/kg dry	0.97	2/22/11	3/04/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site**Contract Lab Case: 41017****Sample ID: 13750A2SF****Lab ID: C110907-35****MD No:****Station ID: 13750****Matrix: Surface Soil****D No: 69T1 CAPE****Date Collected: 2/15/11 10:55**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	21		%		2/22/11	3/04/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	530		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	110		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	7.9		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	4.4 J, CLP01		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	11		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	16		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	4.8 J, CLP01		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	10		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	2.5 J, CLP01		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	1.7 J, CLP01		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	1.2 J, CLP01		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	6.7		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	4.0 J, CLP01		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.25 U, CLP18		ng/kg dry	0.99	2/22/11	3/04/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	1.4 U, B-4		ng/kg dry	0.99	2/22/11	3/04/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	1200 J, Q-3		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	360 J, Q-3		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	140 J, Q-3		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	170 J, Q-3		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	5700 J, CLP02		ng/kg dry	9.9	2/22/11	3/04/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	270		ng/kg dry	9.9	2/22/11	3/04/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	19 J, Q-3		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	51 J, Q-3		ng/kg dry	4.9	2/22/11	3/04/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	14 J, D-5		ng/kg dry	14	2/22/11	3/04/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	11 J, D-5		ng/kg dry	11	2/22/11	3/04/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	17 J, D-5		ng/kg dry	17	2/22/11	3/04/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	6.0 J, Q-3		ng/kg dry	0.99	2/22/11	3/04/11	CL DLM02.0



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980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13750A2SF

Lab ID: C110907-35

MD No:

Station ID: 13750

Matrix: Surface Soil

D No: 69T1 CAPE

Date Collected: 2/15/11 10:55

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
30402-14-3	Tetrachlorodibenzofuran (Total)	24	J, Q-3	ng/kg dry	0.99	2/22/11	3/04/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site**Contract Lab Case: 41017****Sample ID: 13753A2SF****Lab ID: C110907-36****MD No:****Station ID: 13753****Matrix: Surface Soil****D No: 69T2 CAPE****Date Collected: 2/15/11 10:40**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	20		%		2/22/11	3/04/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	810		ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	190		ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	13		ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	8.2	J, CLP33	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	17		ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	30	J, CLP33	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	6.5		ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	16	J, CLP33	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	3.0	J, CLP01	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	2.5	J, CLP01	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	1.5	J, CLP01	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	10		ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	4.4	J, CLP01	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	5.9		ng/kg dry	0.96	2/22/11	3/04/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	1.0	U, B-4	ng/kg dry	0.96	2/22/11	3/04/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	1800	J, Q-3	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	570	J, Q-3	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	220	J, Q-3	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	260	J, Q-3	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	7400	J, CLP02	ng/kg dry	9.6	2/22/11	3/04/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	410		ng/kg dry	9.6	2/22/11	3/04/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	23	J, Q-3	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	62	J, Q-3	ng/kg dry	4.8	2/22/11	3/04/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	23	J, D-5	ng/kg dry	23	2/22/11	3/04/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	22	J, D-5	ng/kg dry	22	2/22/11	3/04/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	31	J, D-5	ng/kg dry	31	2/22/11	3/04/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	11	J, Q-3	ng/kg dry	0.96	2/22/11	3/04/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13753A2SF

Lab ID: C110907-36

MD No:

Station ID: 13753

Matrix: Surface Soil

D No: 69T2 CAPE

Date Collected: 2/15/11 10:40

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	17	J, Q-3	ng/kg dry	0.96	2/22/11	3/04/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13755A2SF

Lab ID: C110907-37

MD No:

Station ID: 13755

Matrix: Surface Soil

D No: 69T3 CAPE

Date Collected: 2/15/11 10:00

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	18		%		2/24/11	3/03/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	570		ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	190		ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	13		ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	6.6	J, CLP33	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	8.6	J, CLP33	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	22	J, CLP33	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	4.7	J, CLP01, CLP33	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	9.2	J, CLP33	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	1.6	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	1.7	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	1.7	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	8.9	J, CLP33	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	7.2		ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.16	U, CLP18	ng/kg dry	0.99	2/24/11	3/03/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	1.1	U, B-4	ng/kg dry	0.99	2/24/11	3/03/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	1100	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	720	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	120	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	290	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	4300	J, CLP02	ng/kg dry	9.9	2/24/11	3/03/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	560		ng/kg dry	9.9	2/24/11	3/03/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	13	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	120	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	17	J, D-5	ng/kg dry	17	2/24/11	3/03/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	15	J, D-5	ng/kg dry	15	2/24/11	3/03/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	20	J, D-5	ng/kg dry	20	2/24/11	3/03/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	3.7	J, Q-3	ng/kg dry	0.99	2/24/11	3/03/11	CL DLM02.0



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980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13755A2SF

Lab ID: C110907-37

MD No:

Station ID: 13755

Matrix: Surface Soil

D No: 69T3 CAPE

Date Collected: 2/15/11 10:00

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	34	J, Q-3	ng/kg dry	0.99	2/24/11	3/03/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin**Project: 11-0207, Kerr-McGee Chemical (Columbus) Site****Contract Lab Case: 41017****Sample ID: 13756A2SF****Lab ID: C110907-38****MD No:****Station ID: 13756****Matrix: Surface Soil****D No: 69T4 CAPE****Date Collected: 2/15/11 9:50**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	26		%		2/24/11	3/03/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	230		ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	55		ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	3.5	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	3.0	J, CLP01, CLP33	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	4.4	J, CLP01, CLP33	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	8.1	J, CLP33	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	2.5	J, CLP01, CLP33	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	5.3	J, CLP33	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	1.1	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	1.1	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.58	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	4.1	J, CLP01, CLP33	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	3.2	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.16	J, CLP01	ng/kg dry	0.98	2/24/11	3/03/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	1.1	U, B-4	ng/kg dry	0.98	2/24/11	3/03/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	530	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	160	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	71	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	91	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	2500		ng/kg dry	9.8	2/24/11	3/03/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	120		ng/kg dry	9.8	2/24/11	3/03/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	11	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	44	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	8.7	J, D-5	ng/kg dry	8.7	2/24/11	3/03/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	6.9	J, D-5	ng/kg dry	6.9	2/24/11	3/03/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin**Project: 11-0207, Kerr-McGee Chemical (Columbus) Site****Contract Lab Case: 41017**Sample ID: 13756A2SFLab ID: C110907-38

MD No:

Station ID: 13756

Matrix: Surface Soil

D No: 69T4 CAPE

Date Collected: 2/15/11 9:50

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	8.9	J, D-5	ng/kg dry	8.9	2/24/11	3/03/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	2.9	J, Q-3	ng/kg dry	0.98	2/24/11	3/03/11	CL DLM02.0
30402-14-3	Tetrachlorodibenzofuran (Total)	15	J, Q-3	ng/kg dry	0.98	2/24/11	3/03/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site**Contract Lab Case: 41017****Sample ID:** 13758A2SF**Lab ID:** C110907-39**MD No:****Station ID:** 13758**Matrix:** Surface Soil**D No:** 69T5 CAPE**Date Collected:** 2/15/11 9:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	27		%		2/24/11	3/03/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	400		ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	100		ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	5.5		ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	4.5	J, CLP01, CLP33	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	7.9	J, CLP33	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	13	J, CLP33	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	4.4	J, CLP01, CLP33	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	9.0	J, CLP33	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	1.8	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	2.0	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	1.2	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	6.2	J, CLP33	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	4.1	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.43	U, CLP18	ng/kg dry	0.99	2/24/11	3/03/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	1.7	CLP10	ng/kg dry	0.99	2/24/11	3/03/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	900	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	280	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	120	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	150	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	4600	J, CLP02	ng/kg dry	9.9	2/24/11	3/03/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	200		ng/kg dry	9.9	2/24/11	3/03/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	22	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	50	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	14	J, D-5	ng/kg dry	14	2/24/11	3/03/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	11	J, D-5	ng/kg dry	11	2/24/11	3/03/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	15	J, D-5	ng/kg dry	15	2/24/11	3/03/11	CL DLM02.0



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Region 4 Science and Ecosystem Support Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin**Project: 11-0207, Kerr-McGee Chemical (Columbus) Site****Contract Lab Case: 41017**Sample ID: 13758A2SFLab ID: C110907-39

MD No:

Station ID: 13758

Matrix: Surface Soil

D No: 69T5 CAPE

Date Collected: 2/15/11 9:30

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
41903-57-5	Tetrachlorodibenzodioxin (Total)	12	J, Q-3	ng/kg dry	0.99	2/24/11	3/03/11	CL DLM02.0
30402-14-3	Tetrachlorodibenzofuran (Total)	26	J, Q-3	ng/kg dry	0.99	2/24/11	3/03/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site**Contract Lab Case: 41017****Sample ID: 13758A2SFX****Lab ID: C110907-40****MD No:****Station ID: 13758****Matrix: Surface Soil****D No: 69T6 CAPE****Date Collected: 2/15/11 9:32**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	28		%		2/24/11	3/03/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	1600		ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	370		ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	31		ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	8.8	J, CLP33	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	54	J, CLP33	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	44	J, CLP33	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	14	J, CLP33	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	20	J, CLP33	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	9.8		ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	4.0	J, CLP01	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	3.3	J, CLP01	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	24	J, CLP33	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	13		ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.60	U, CLP18	ng/kg dry	0.97	2/24/11	3/03/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	2.6	CLP10	ng/kg dry	0.97	2/24/11	3/03/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	4200	J, Q-3	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	1400	J, Q-3	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	320	J, Q-3	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	710	J, Q-3	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	22000	J, CLP02	ng/kg dry	9.7	2/24/11	3/03/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	970		ng/kg dry	9.7	2/24/11	3/03/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	36	J, Q-3	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	120	J, Q-3	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	41	J, D-5	ng/kg dry	41	2/24/11	3/03/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	34	J, D-5	ng/kg dry	34	2/24/11	3/03/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	54	J, D-5	ng/kg dry	54	2/24/11	3/03/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	18	J, Q-3	ng/kg dry	0.97	2/24/11	3/03/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13758A2SFX

Lab ID: C110907-40

MD No:

Station ID: 13758

Matrix: Surface Soil

D No: 69T6 CAPE

Date Collected: 2/15/11 9:32

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
30402-14-3	Tetrachlorodibenzofuran (Total)	46	J, Q-3	ng/kg dry	0.97	2/24/11	3/03/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin**Project: 11-0207, Kerr-McGee Chemical (Columbus) Site****Contract Lab Case: 41017****Sample ID: 13759A2SF****Lab ID: C110907-41****MD No:****Station ID: 13759****Matrix: Surface Soil****D No: 69T7 CAPE****Date Collected: 2/15/11 9:15**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	21		%		2/24/11	3/03/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	840		ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	240		ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	12		ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	11 J, CLP33		ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	13 J, CLP33		ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	30 J, CLP33		ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	7.5 J, CLP33		ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	17 J, CLP33		ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	3.4 J, CLP01		ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	2.9 J, CLP01		ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	1.4 J, CLP01		ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	12 J, CLP33		ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	8.3		ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.38 J, CLP01		ng/kg dry	0.97	2/24/11	3/03/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	1.2 U, B-4		ng/kg dry	0.97	2/24/11	3/03/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	1700 J, Q-3		ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	700 J, Q-3		ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	240 J, Q-3		ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	340 J, Q-3		ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	8800 J, CLP02		ng/kg dry	9.7	2/24/11	3/03/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	430		ng/kg dry	9.7	2/24/11	3/03/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	25 J, Q-3		ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	110 J, Q-3		ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	23 J, D-5		ng/kg dry	23	2/24/11	3/03/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	21 J, D-5		ng/kg dry	21	2/24/11	3/03/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	29 J, D-5		ng/kg dry	29	2/24/11	3/03/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	8.1 J, Q-3		ng/kg dry	0.97	2/24/11	3/03/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13759A2SF

Lab ID: C110907-41

MD No:

Station ID: 13759

Matrix: Surface Soil

D No: 69T7 CAPE

Date Collected: 2/15/11 9:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
30402-14-3	Tetrachlorodibenzofuran (Total)	32	J, Q-3	ng/kg dry	0.97	2/24/11	3/03/11	CL DLM02.0



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Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site**Contract Lab Case: 41017****Sample ID: 13761A2SF****Lab ID: C110907-42****MD No:****Station ID: 13761****Matrix: Surface Soil****D No: 69T8 CAPE****Date Collected: 2/15/11 9:05**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	17		%		2/24/11	3/04/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	2600		ng/kg dry	24	2/24/11	3/04/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	850		ng/kg dry	24	2/24/11	3/04/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	79		ng/kg dry	24	2/24/11	3/04/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	23	J, CLP01	ng/kg dry	24	2/24/11	3/04/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	44		ng/kg dry	24	2/24/11	3/04/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	78		ng/kg dry	24	2/24/11	3/04/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	20	J, CLP01	ng/kg dry	24	2/24/11	3/04/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	31		ng/kg dry	24	2/24/11	3/04/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	7.4	J, CLP01	ng/kg dry	24	2/24/11	3/04/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	5.0	J, CLP01	ng/kg dry	24	2/24/11	3/04/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	1.5	J, CLP01	ng/kg dry	24	2/24/11	3/04/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	40		ng/kg dry	24	2/24/11	3/04/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	7.5	J, CLP01	ng/kg dry	24	2/24/11	3/04/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.67	U	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	1.2	U	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	5100	J, Q-3	ng/kg dry	24	2/24/11	3/04/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	3700	J, Q-3	ng/kg dry	24	2/24/11	3/04/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	470	J, Q-3	ng/kg dry	24	2/24/11	3/04/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	1100	J, Q-3	ng/kg dry	24	2/24/11	3/04/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	22000	J, CLP02	ng/kg dry	48	2/24/11	3/04/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	3600		ng/kg dry	48	2/24/11	3/04/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	39	J, Q-3	ng/kg dry	24	2/24/11	3/04/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	180	J, Q-3	ng/kg dry	24	2/24/11	3/04/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	45	J, D-5	ng/kg dry	45	2/24/11	3/04/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	48	J, D-5	ng/kg dry	48	2/24/11	3/04/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	75	J, D-5	ng/kg dry	75	2/24/11	3/04/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	2.7	J, Q-3	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

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Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13761A2SF

Lab ID: C110907-42

MD No:

Station ID: 13761

Matrix: Surface Soil

D No: 69T8 CAPE

Date Collected: 2/15/11 9:05

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	31	J, Q-3	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site**Contract Lab Case: 41017****Sample ID: 13762A2SF****Lab ID: C110907-43****MD No:****Station ID: 13762****Matrix: Surface Soil****D No: 69T9 CAPE****Date Collected: 2/15/11 8:50**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	17		%		2/24/11	3/03/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	150		ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	27		ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	1.6	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	1.7	J, CLP01, CLP33	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	2.5	J, CLP01, CLP33	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	4.3	J, CLP01, CLP33	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	1.4	J, CLP01, CLP33	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	3.9	J, CLP01, CLP33	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.54	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	0.84	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.34	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	1.8	J, CLP01, CLP33	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	1.4	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.20	U, CLP18	ng/kg dry	0.98	2/24/11	3/03/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.79	U	ng/kg dry	0.98	2/24/11	3/03/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	370	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	70	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	48	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	43	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	3300		ng/kg dry	9.8	2/24/11	3/03/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	46		ng/kg dry	9.8	2/24/11	3/03/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	7.3	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	18	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	5.2	J, D-5	ng/kg dry	5.2	2/24/11	3/03/11	CL DLM02.0



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin**Project: 11-0207, Kerr-McGee Chemical (Columbus) Site****Contract Lab Case: 41017****Sample ID:** 13762A2SF**Lab ID:** C110907-43**MD No:****Station ID:** 13762**Matrix:** Surface Soil**D No:** 69T9 CAPE**Date Collected:** 2/15/11 8:50

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	4.1	J, D-5	ng/kg dry	4.1	2/24/11	3/03/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	6.0	J, D-5	ng/kg dry	6.0	2/24/11	3/03/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	3.2	J, Q-3	ng/kg dry	0.98	2/24/11	3/03/11	CL DLM02.0
30402-14-3	Tetrachlorodibenzofuran (Total)	9.4	J, Q-3	ng/kg dry	0.98	2/24/11	3/03/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin**Project: 11-0207, Kerr-McGee Chemical (Columbus) Site****Contract Lab Case: 41017****Sample ID: 13764A2SF****Lab ID: C110907-44****MD No:****Station ID: 13764****Matrix: Surface Soil****D No: 69W0 CAPE****Date Collected: 2/15/11 15:50**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	20		%		2/24/11	3/03/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	110		ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	24		ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	1.6	J, CLP01	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	1.2	J, CLP01	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	1.9	J, CLP01	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	3.6	J, CLP01	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	1.2	J, CLP01	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	2.8	J, CLP01	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.44	J, CLP01	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	0.76	J, CLP01	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.28	J, CLP01	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	1.4	J, CLP01	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	0.67	J, CLP01	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.20	U, CLP18	ng/kg dry	0.96	2/24/11	3/03/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.86	U	ng/kg dry	0.96	2/24/11	3/03/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	270	J, Q-3	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	64	J, Q-3	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	39	J, Q-3	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	29	J, Q-3	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	1700		ng/kg dry	9.6	2/24/11	3/03/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	47		ng/kg dry	9.6	2/24/11	3/03/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	8.9	J, Q-3	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	8.8	J, Q-3	ng/kg dry	4.8	2/24/11	3/03/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	3.9	J, D-5	ng/kg dry	3.9	2/24/11	3/03/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	3.1	J, D-5	ng/kg dry	3.1	2/24/11	3/03/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	4.4	J, D-5	ng/kg dry	4.4	2/24/11	3/03/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	2.3	J, Q-3	ng/kg dry	0.96	2/24/11	3/03/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13764A2SF

Lab ID: C110907-44

MD No:

Station ID: 13764

Matrix: Surface Soil

D No: 69W0 CAPE

Date Collected: 2/15/11 15:50

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
30402-14-3	Tetrachlorodibenzofuran (Total)	6.7	J, Q-3	ng/kg dry	0.96	2/24/11	3/03/11	CL DLM02.0



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Dioxin**Project: 11-0207, Kerr-McGee Chemical (Columbus) Site****Contract Lab Case: 41017****Sample ID: 13764A2SFX****Lab ID: C110907-45****MD No:****Station ID: 13764****Matrix: Surface Soil****D No: 69W1 CAPE****Date Collected: 2/15/11 15:50**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	20		%		2/24/11	3/03/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	100		ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	21		ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	1.4	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	1.1	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	1.6	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	3.2	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	0.94	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	2.6	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.38	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	0.57	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.23	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	1.2	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	0.62	J, CLP01	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.17	J, CLP01	ng/kg dry	0.99	2/24/11	3/03/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.62	U	ng/kg dry	0.99	2/24/11	3/03/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	500	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	80	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	65	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	31	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	1300		ng/kg dry	9.9	2/24/11	3/03/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	42		ng/kg dry	9.9	2/24/11	3/03/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	8.2	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	9.2	J, Q-3	ng/kg dry	4.9	2/24/11	3/03/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	3.2	J, D-5	ng/kg dry	3.2	2/24/11	3/03/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	2.6	J, D-5	ng/kg dry	2.6	2/24/11	3/03/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	3.8	J, D-5	ng/kg dry	3.8	2/24/11	3/03/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	3.1	J, Q-3	ng/kg dry	0.99	2/24/11	3/03/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13764A2SFX

Lab ID: C110907-45

MD No:

Station ID: 13764

Matrix: Surface Soil

D No: 69W1 CAPE

Date Collected: 2/15/11 15:50

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
30402-14-3	Tetrachlorodibenzofuran (Total)	7.3	J, Q-3	ng/kg dry	0.99	2/24/11	3/03/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin**Project: 11-0207, Kerr-McGee Chemical (Columbus) Site****Contract Lab Case: 41017****Sample ID: 13766A2SF****Lab ID: C110907-46****MD No:****Station ID: 13766****Matrix: Surface Soil****D No: 69W2 CAPE****Date Collected: 2/15/11 8:30**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	14		%		2/24/11	3/03/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	340		ng/kg dry	4.7	2/24/11	3/03/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	190		ng/kg dry	4.7	2/24/11	3/03/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	7.4		ng/kg dry	4.7	2/24/11	3/03/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	3.5 J, CLP01		ng/kg dry	4.7	2/24/11	3/03/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	9.6		ng/kg dry	4.7	2/24/11	3/03/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	13		ng/kg dry	4.7	2/24/11	3/03/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	5.3		ng/kg dry	4.7	2/24/11	3/03/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	8.2		ng/kg dry	4.7	2/24/11	3/03/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	1.2 J, CLP01		ng/kg dry	4.7	2/24/11	3/03/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	1.5 J, CLP01		ng/kg dry	4.7	2/24/11	3/03/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.81 J, CLP01		ng/kg dry	4.7	2/24/11	3/03/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	8.0		ng/kg dry	4.7	2/24/11	3/03/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	3.2 J, CLP01		ng/kg dry	4.7	2/24/11	3/03/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.18 J, CLP01		ng/kg dry	0.94	2/24/11	3/03/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.82 U		ng/kg dry	0.94	2/24/11	3/03/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	720 J, Q-3		ng/kg dry	4.7	2/24/11	3/03/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	410 J, Q-3		ng/kg dry	4.7	2/24/11	3/03/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	110 J, Q-3		ng/kg dry	4.7	2/24/11	3/03/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	170 J, Q-3		ng/kg dry	4.7	2/24/11	3/03/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	2900		ng/kg dry	9.4	2/24/11	3/03/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	300		ng/kg dry	9.4	2/24/11	3/03/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	14 J, Q-3		ng/kg dry	4.7	2/24/11	3/03/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	46 J, Q-3		ng/kg dry	4.7	2/24/11	3/03/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	12 J, D-5		ng/kg dry	12	2/24/11	3/03/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	10 J, D-5		ng/kg dry	10	2/24/11	3/03/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	14 J, D-5		ng/kg dry	14	2/24/11	3/03/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	2.7 J, Q-3		ng/kg dry	0.94	2/24/11	3/03/11	CL DLM02.0



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980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13766A2SF

Lab ID: C110907-46

MD No:

Station ID: 13766

Matrix: Surface Soil

D No: 69W2 CAPE

Date Collected: 2/15/11 8:30

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	12	J, Q-3	ng/kg dry	0.94	2/24/11	3/03/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13767A2SF

Lab ID: C110907-47

MD No:

Station ID: 13767

Matrix: Surface Soil

D No: 69W3 CAPE

Date Collected: 2/14/11 14:58

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	15		%		2/24/11	3/04/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	730		ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	110		ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	11		ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	5.8	J, CLP33	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	14	J, CLP33	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	17	J, CLP33	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	3.9	J, CLP01, CLP33	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	7.2	J, CLP33	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	3.5	J, CLP01	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	1.3	J, CLP01	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.66	J, CLP01	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	6.7	J, CLP33	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	3.1	J, CLP01	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.24	U, CLP18	ng/kg dry	0.96	2/24/11	3/04/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.66	U	ng/kg dry	0.96	2/24/11	3/04/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	2700	J, Q-3	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	440	J, Q-3	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	200	J, Q-3	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	220	J, Q-3	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	12000	J, CLP02	ng/kg dry	9.6	2/24/11	3/04/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	340		ng/kg dry	9.6	2/24/11	3/04/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	14	J, Q-3	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	28	J, Q-3	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	13	J, D-5	ng/kg dry	13	2/24/11	3/04/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	12	J, D-5	ng/kg dry	12	2/24/11	3/04/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	21	J, D-5	ng/kg dry	21	2/24/11	3/04/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	2.6	J, Q-3	ng/kg dry	0.96	2/24/11	3/04/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13767A2SF

Lab ID: C110907-47

MD No:

Station ID: 13767

Matrix: Surface Soil

D No: 69W3 CAPE

Date Collected: 2/14/11 14:58

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	5.6	J, Q-3	ng/kg dry	0.96	2/24/11	3/04/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin**Project: 11-0207, Kerr-McGee Chemical (Columbus) Site****Contract Lab Case: 41017****Sample ID: 13774A2SF****Lab ID: C110907-48****MD No:****Station ID: 13774****Matrix: Surface Soil****D No: 69W4 CAPE****Date Collected: 2/15/11 11:20**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	20		%		2/24/11	3/04/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	85		ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	17		ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	0.79	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	1.1	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	0.93	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	2.4	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	0.55	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	1.9	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.30	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	0.45	U, CLP18	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.22	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	0.96	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	0.51	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.19	J, CLP01	ng/kg dry	0.97	2/24/11	3/04/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.54	U	ng/kg dry	0.97	2/24/11	3/04/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	210	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	42	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	26	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	18	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	1500		ng/kg dry	9.7	2/24/11	3/04/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	39		ng/kg dry	9.7	2/24/11	3/04/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	3.9	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	6.6	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	2.7	J, D-5	ng/kg dry	2.7	2/24/11	3/04/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	2.2	J, D-5	ng/kg dry	2.2	2/24/11	3/04/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	3.2	J, D-5	ng/kg dry	3.2	2/24/11	3/04/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	1.1	J, Q-3	ng/kg dry	0.97	2/24/11	3/04/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13774A2SF

Lab ID: C110907-48

MD No:

Station ID: 13774

Matrix: Surface Soil

D No: 69W4 CAPE

Date Collected: 2/15/11 11:20

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	4.4	J, Q-3	ng/kg dry	0.97	2/24/11	3/04/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site**Contract Lab Case: 41017****Sample ID: 13775A2SB12****Lab ID: C110907-49****MD No:****Station ID: 13775****Matrix: Subsurface Soil****D No: 69W5 CAPE****Date Collected: 2/15/11 12:50**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	13		%		2/24/11	3/04/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	30		ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	5.8		ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	0.41	U, CLP18	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	0.28	U, CLP18	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	0.32	J, CLP01	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	1.1	J, CLP01	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	0.23	J, CLP01	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	0.98	J, CLP01	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.16	U	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	0.36	J, CLP01	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.13	U	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	0.30	J, CLP01	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	0.33	J, CLP01	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.11	U	ng/kg dry	0.96	2/24/11	3/04/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.53	U	ng/kg dry	0.96	2/24/11	3/04/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	73	J, Q-3	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	16	J, Q-3	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	11	J, Q-3	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	7.0	J, Q-3	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	630		ng/kg dry	9.6	2/24/11	3/04/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	11		ng/kg dry	9.6	2/24/11	3/04/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	2.0	J, Q-3	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	3.2	J, Q-3	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	1.7	J, D-5	ng/kg dry	1.7	2/24/11	3/04/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	1.1	J, D-5	ng/kg dry	1.1	2/24/11	3/04/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	1.5	J, D-5	ng/kg dry	1.5	2/24/11	3/04/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	0.48	J, Q-3	ng/kg dry	0.96	2/24/11	3/04/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13775A2SB12

Lab ID: C110907-49

MD No:

Station ID: 13775

Matrix: Subsurface Soil

D No: 69W5 CAPE

Date Collected: 2/15/11 12:50

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	2.1	J, Q-3	ng/kg dry	0.96	2/24/11	3/04/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin**Project: 11-0207, Kerr-McGee Chemical (Columbus) Site****Contract Lab Case: 41017****Sample ID: 13775A2SF****Lab ID: C110907-50****MD No:****Station ID: 13775****Matrix: Surface Soil****D No: 69W6 CAPE****Date Collected: 2/15/11 12:30**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	22		%		2/24/11	3/04/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	95		ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	13		ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	0.98	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	0.97	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	1.1	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	2.8	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	0.51	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	2.0	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.42	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	0.42	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.28	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	0.97	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	0.57	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.13	J, CLP01	ng/kg dry	0.98	2/24/11	3/04/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.61	U, CLP18	ng/kg dry	0.98	2/24/11	3/04/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	260	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	40	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	29	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	18	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	1700		ng/kg dry	9.8	2/24/11	3/04/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	31		ng/kg dry	9.8	2/24/11	3/04/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	4.2	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	6.5	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	2.7	J, D-5	ng/kg dry	2.7	2/24/11	3/04/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	2.1	J, D-5	ng/kg dry	2.1	2/24/11	3/04/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	3.3	J, D-5	ng/kg dry	3.3	2/24/11	3/04/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	1.7	J, Q-3	ng/kg dry	0.98	2/24/11	3/04/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13775A2SF

Lab ID: C110907-50

MD No:

Station ID: 13775

Matrix: Surface Soil

D No: 69W6 CAPE

Date Collected: 2/15/11 12:30

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	4.8	J, Q-3	ng/kg dry	0.98	2/24/11	3/04/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site**Contract Lab Case: 41017****Sample ID: 13785A2SF****Lab ID: C110907-51****MD No:****Station ID: 13785****Matrix: Surface Soil****D No: 69W7 CAPE****Date Collected: 2/15/11 15:10**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	18		%		2/24/11	3/04/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	480		ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	100		ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	6.3		ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	3.3	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	3.9	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	15		ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	2.1	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	6.0		ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.98	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	1.4	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.57	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	3.3	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	1.2	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.29	U, CLP18	ng/kg dry	0.98	2/24/11	3/04/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.95	U	ng/kg dry	0.98	2/24/11	3/04/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	1400	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	460	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	140	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	120	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	4800	J, CLP02	ng/kg dry	9.8	2/24/11	3/04/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	380		ng/kg dry	9.8	2/24/11	3/04/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	16	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	18	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	7.8	J, D-5	ng/kg dry	7.8	2/24/11	3/04/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	7.3	J, D-5	ng/kg dry	7.3	2/24/11	3/04/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	13	J, D-5	ng/kg dry	13	2/24/11	3/04/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	4.4	J, Q-3	ng/kg dry	0.98	2/24/11	3/04/11	CL DLM02.0



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Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13785A2SF

Lab ID: C110907-51

MD No:

Station ID: 13785

Matrix: Surface Soil

D No: 69W7 CAPE

Date Collected: 2/15/11 15:10

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	10	J, Q-3	ng/kg dry	0.98	2/24/11	3/04/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site**Contract Lab Case: 41017****Sample ID: 13889A2SF****Lab ID: C110907-52****MD No:****Station ID: 13889****Matrix: Surface Soil****D No: 69W8 CAPE****Date Collected: 2/15/11 14:50**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	20		%		2/24/11	3/04/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	170		ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	36		ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	2.3	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	2.2	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	2.0	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	5.4		ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	1.2	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	5.7		ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.58	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	1.0	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.33	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	1.6	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	0.65	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.14	J, CLP01	ng/kg dry	0.99	2/24/11	3/04/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.56	U	ng/kg dry	0.99	2/24/11	3/04/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	400	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	88	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	56	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	35	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	1600		ng/kg dry	9.9	2/24/11	3/04/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	74		ng/kg dry	9.9	2/24/11	3/04/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	7.7	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	8.7	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	4.4	J, D-5	ng/kg dry	4.4	2/24/11	3/04/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	4.0	J, D-5	ng/kg dry	4.0	2/24/11	3/04/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	5.9	J, D-5	ng/kg dry	5.9	2/24/11	3/04/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	1.9	J, Q-3	ng/kg dry	0.99	2/24/11	3/04/11	CL DLM02.0



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Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13889A2SF

Lab ID: C110907-52

MD No:

Station ID: 13889

Matrix: Surface Soil

D No: 69W8 CAPE

Date Collected: 2/15/11 14:50

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	3.8	J, Q-3	ng/kg dry	0.99	2/24/11	3/04/11	CL DLM02.0



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Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site**Contract Lab Case: 41017****Sample ID: 13890A2SF****Lab ID: C110907-53****MD No:****Station ID: 13890****Matrix: Surface Soil****D No: 69W9 CAPE****Date Collected: 2/15/11 14:20**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	25		%		2/24/11	3/04/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	77		ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	20		ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	1.1	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	0.82	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	1.2	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	2.5	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	0.62	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	1.7	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.26	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	0.32	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.25	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	0.83	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	0.47	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.17	J, CLP01	ng/kg dry	0.98	2/24/11	3/04/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.66	U	ng/kg dry	0.98	2/24/11	3/04/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	190	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	50	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	26	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	18	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	760		ng/kg dry	9.8	2/24/11	3/04/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	39		ng/kg dry	9.8	2/24/11	3/04/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	4.1	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	5.8	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	2.5	J, D-5	ng/kg dry	2.5	2/24/11	3/04/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	1.9	J, D-5	ng/kg dry	1.9	2/24/11	3/04/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	2.7	J, D-5	ng/kg dry	2.7	2/24/11	3/04/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	1.4	J, Q-3	ng/kg dry	0.98	2/24/11	3/04/11	CL DLM02.0



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Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13890A2SF

Lab ID: C110907-53

MD No:

Station ID: 13890

Matrix: Surface Soil

D No: 69W9 CAPE

Date Collected: 2/15/11 14:20

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
30402-14-3	Tetrachlorodibenzofuran (Total)	3.9	J, Q-3	ng/kg dry	0.98	2/24/11	3/04/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin**Project: 11-0207, Kerr-McGee Chemical (Columbus) Site****Contract Lab Case: 41017****Sample ID: 13894A2SF****Lab ID: C110907-54****MD No:****Station ID: 13894****Matrix: Surface Soil****D No: 69X0 CAPE****Date Collected: 2/15/11 13:50**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	19		%		2/24/11	3/04/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	74		ng/kg dry	4.6	2/24/11	3/04/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	17		ng/kg dry	4.6	2/24/11	3/04/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	1.0	J, CLP01	ng/kg dry	4.6	2/24/11	3/04/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	0.95	J, CLP01	ng/kg dry	4.6	2/24/11	3/04/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	1.4	J, CLP01	ng/kg dry	4.6	2/24/11	3/04/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	2.6	J, CLP01	ng/kg dry	4.6	2/24/11	3/04/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	0.68	J, CLP01	ng/kg dry	4.6	2/24/11	3/04/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	2.0	J, CLP01	ng/kg dry	4.6	2/24/11	3/04/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.36	J, CLP01	ng/kg dry	4.6	2/24/11	3/04/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	0.40	J, CLP01	ng/kg dry	4.6	2/24/11	3/04/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.17	J, CLP01	ng/kg dry	4.6	2/24/11	3/04/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	1.1	J, CLP01	ng/kg dry	4.6	2/24/11	3/04/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	0.44	J, CLP01	ng/kg dry	4.6	2/24/11	3/04/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.12	J, CLP01	ng/kg dry	0.93	2/24/11	3/04/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.52	U	ng/kg dry	0.93	2/24/11	3/04/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	170	J, Q-3	ng/kg dry	4.6	2/24/11	3/04/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	42	J, Q-3	ng/kg dry	4.6	2/24/11	3/04/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	26	J, Q-3	ng/kg dry	4.6	2/24/11	3/04/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	21	J, Q-3	ng/kg dry	4.6	2/24/11	3/04/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	750		ng/kg dry	9.3	2/24/11	3/04/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	28		ng/kg dry	9.3	2/24/11	3/04/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	3.5	J, Q-3	ng/kg dry	4.6	2/24/11	3/04/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	6.1	J, Q-3	ng/kg dry	4.6	2/24/11	3/04/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	2.5	J, D-5	ng/kg dry	2.5	2/24/11	3/04/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	2.0	J, D-5	ng/kg dry	2.0	2/24/11	3/04/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	2.8	J, D-5	ng/kg dry	2.8	2/24/11	3/04/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	0.88	J, Q-3	ng/kg dry	0.93	2/24/11	3/04/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 13894A2SF

Lab ID: C110907-54

MD No:

Station ID: 13894

Matrix: Surface Soil

D No: 69X0 CAPE

Date Collected: 2/15/11 13:50

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
30402-14-3	Tetrachlorodibenzofuran (Total)	3.0	J, Q-3	ng/kg dry	0.93	2/24/11	3/04/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site**Contract Lab Case: 41017****Sample ID: 13900A2SF****Lab ID: C110907-55****MD No:****Station ID: 13900****Matrix: Surface Soil****D No: 69X1 CAPE****Date Collected: 2/15/11 13:25**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	22		%		2/24/11	3/04/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	200		ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	74		ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	3.0	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	3.3	J, CLP01, CLP33	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	4.6	J, CLP01, CLP33	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	7.4	J, CLP33	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	3.1	J, CLP01, CLP33	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	5.1	J, CLP33	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.98	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	0.95	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.50	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	4.8	J, CLP01, CLP33	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	4.0	J, CLP01	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.27	J, CLP01	ng/kg dry	0.97	2/24/11	3/04/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.96	U	ng/kg dry	0.97	2/24/11	3/04/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	490	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	150	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	82	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	96	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	2100		ng/kg dry	9.7	2/24/11	3/04/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	93		ng/kg dry	9.7	2/24/11	3/04/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	12	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	59	J, Q-3	ng/kg dry	4.9	2/24/11	3/04/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	9.5	J, D-5	ng/kg dry	9.5	2/24/11	3/04/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	7.6	J, D-5	ng/kg dry	7.6	2/24/11	3/04/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin**Project: 11-0207, Kerr-McGee Chemical (Columbus) Site****Contract Lab Case: 41017****Sample ID:** 13900A2SF**Lab ID:** C110907-55**MD No:****Station ID:** 13900**Matrix:** Surface Soil**D No:** 69X1 CAPE**Date Collected:** 2/15/11 13:25

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	8.9	J, D-5	ng/kg dry	8.9	2/24/11	3/04/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	2.3	J, Q-3	ng/kg dry	0.97	2/24/11	3/04/11	CL DLM02.0
30402-14-3	Tetrachlorodibenzofuran (Total)	18	J, Q-3	ng/kg dry	0.97	2/24/11	3/04/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site**Contract Lab Case: 41017****Sample ID: 29844A2SF****Lab ID: C110907-56****MD No:****Station ID: 29844****Matrix: Surface Soil****D No: 69X2 CAPE****Date Collected: 2/15/11 16:52**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	18		%		2/24/11	3/04/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	130		ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	34		ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	3.4	J, CLP01	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	2.0	J, CLP01	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	3.3	J, CLP01	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	4.5	J, CLP01	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	2.0	J, CLP01	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	3.3	J, CLP01	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.73	J, CLP01	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	0.58	J, CLP01	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.51	J, CLP01	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	2.2	J, CLP01	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	1.2	J, CLP01	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.25	J, CLP01	ng/kg dry	0.97	2/24/11	3/04/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.83	U	ng/kg dry	0.97	2/24/11	3/04/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	330	J, Q-3	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	91	J, Q-3	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	51	J, Q-3	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	41	J, Q-3	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	1400		ng/kg dry	9.7	2/24/11	3/04/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	70		ng/kg dry	9.7	2/24/11	3/04/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	7.5	J, Q-3	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	23	J, Q-3	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	4.8	J, D-5	ng/kg dry	4.8	2/24/11	3/04/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	4.1	J, D-5	ng/kg dry	4.1	2/24/11	3/04/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	5.2	J, D-5	ng/kg dry	5.2	2/24/11	3/04/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	2.1	J, Q-3	ng/kg dry	0.97	2/24/11	3/04/11	CL DLM02.0



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D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 29844A2SF

Lab ID: C110907-56

MD No:

Station ID: 29844

Matrix: Surface Soil

D No: 69X2 CAPE

Date Collected: 2/15/11 16:52

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
30402-14-3	Tetrachlorodibenzofuran (Total)	9.6	J, Q-3	ng/kg dry	0.97	2/24/11	3/04/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin**Project: 11-0207, Kerr-McGee Chemical (Columbus) Site****Contract Lab Case: 41017****Sample ID: KM1501A2SF****Lab ID: C110907-57****MD No:****Station ID: KM1501****Matrix: Surface Soil****D No: 69X3 CAPE****Date Collected: 2/15/11 8:30**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	23		%		2/28/11	3/04/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	110		ng/kg dry	4.7	2/28/11	3/04/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	16		ng/kg dry	4.7	2/28/11	3/04/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	0.97	J, CLP01	ng/kg dry	4.7	2/28/11	3/04/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	0.77	J, CLP01	ng/kg dry	4.7	2/28/11	3/04/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	1.7	J, CLP01	ng/kg dry	4.7	2/28/11	3/04/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	2.5	J, CLP01	ng/kg dry	4.7	2/28/11	3/04/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	0.73	J, CLP01	ng/kg dry	4.7	2/28/11	3/04/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	1.8	J, CLP01	ng/kg dry	4.7	2/28/11	3/04/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.26	J, CLP01	ng/kg dry	4.7	2/28/11	3/04/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	0.37	J, CLP01	ng/kg dry	4.7	2/28/11	3/04/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.21	J, CLP01	ng/kg dry	4.7	2/28/11	3/04/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	0.89	J, CLP01	ng/kg dry	4.7	2/28/11	3/04/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	0.41	J, CLP01	ng/kg dry	4.7	2/28/11	3/04/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.13	U	ng/kg dry	0.95	2/28/11	3/04/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.54	U	ng/kg dry	0.95	2/28/11	3/04/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	320	J, Q-3	ng/kg dry	4.7	2/28/11	3/04/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	56	J, Q-3	ng/kg dry	4.7	2/28/11	3/04/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	26	J, Q-3	ng/kg dry	4.7	2/28/11	3/04/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	21	J, Q-3	ng/kg dry	4.7	2/28/11	3/04/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	1500		ng/kg dry	9.5	2/28/11	3/04/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	53		ng/kg dry	9.5	2/28/11	3/04/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	2.8	J, Q-3	ng/kg dry	4.7	2/28/11	3/04/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	5.0	J, Q-3	ng/kg dry	4.7	2/28/11	3/04/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	2.5	J, D-5	ng/kg dry	2.5	2/28/11	3/04/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	2.0	J, D-5	ng/kg dry	2.0	2/28/11	3/04/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	3.2	J, D-5	ng/kg dry	3.2	2/28/11	3/04/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	0.19	J, Q-3	ng/kg dry	0.95	2/28/11	3/04/11	CL DLM02.0



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980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: KM1501A2SF

Lab ID: C110907-57

MD No:

Station ID: KM1501

Matrix: Surface Soil

D No: 69X3 CAPE

Date Collected: 2/15/11 8:30

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	1.7	J, Q-3	ng/kg dry	0.95	2/28/11	3/04/11	CL DLM02.0



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Dioxin**Project: 11-0207, Kerr-McGee Chemical (Columbus) Site****Contract Lab Case: 41017****Sample ID: KMPP1SF****Lab ID: C110907-58****MD No:****Station ID: KMPP1****Matrix: Surface Soil****D No: 69P5 CAPE****Date Collected: 2/15/11 17:00**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	9.8		%		2/21/11	3/02/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	50		ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	9.9		ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	0.54 J, CLP01		ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	0.69 U		ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	0.65 J, CLP01		ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	1.6 U, CLP18		ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	0.51 J, CLP01		ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	1.6 J, CLP01		ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.61 U		ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	0.42 U		ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.20 U, CLP18		ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	0.45 U		ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	0.30 U		ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.27 U		ng/kg dry	0.99	2/21/11	3/02/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.43 U		ng/kg dry	0.99	2/21/11	3/02/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	130 J, Q-3		ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	28 J, Q-3		ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	20 J, Q-3		ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	10 J, Q-3		ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	1300		ng/kg dry	9.9	2/21/11	3/02/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	18		ng/kg dry	9.9	2/21/11	3/02/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	3.0 J, Q-3		ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	1.3 J, Q-3		ng/kg dry	4.9	2/21/11	3/02/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	2.2 J, D-5		ng/kg dry	2.2	2/21/11	3/02/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	1.8 J, D-5		ng/kg dry	1.8	2/21/11	3/02/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	2.4 J, D-5		ng/kg dry	2.4	2/21/11	3/02/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	1.7 J, Q-3		ng/kg dry	0.99	2/21/11	3/02/11	CL DLM02.0



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Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: KMPP1SF

Lab ID: C110907-58

MD No:

Station ID: KMPP1

Matrix: Surface Soil

D No: 69P5 CAPE

Date Collected: 2/15/11 17:00

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	0.66	J, Q-3	ng/kg dry	0.99	2/21/11	3/02/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin**Project: 11-0207, Kerr-McGee Chemical (Columbus) Site****Contract Lab Case: 41017****Sample ID: KMWP01****Lab ID: C110907-59****MD No:****Station ID: KMWP01****Matrix: Surface Soil****D No: 69X4 CAPE****Date Collected: 2/16/11 9:00**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	7.5		%		2/28/11	3/08/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	28000		ng/kg dry	240	2/28/11	3/08/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	6500		ng/kg dry	240	2/28/11	3/08/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	680	J, QI-1	ng/kg dry	240	2/28/11	3/08/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	63	J, CLP01, CLP33, QI-1	ng/kg dry	240	2/28/11	3/08/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	1400	J, CLP33, QI-1	ng/kg dry	240	2/28/11	3/08/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	770	J, CLP33, QI-1	ng/kg dry	240	2/28/11	3/08/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	270	J, CLP33, QI-1	ng/kg dry	240	2/28/11	3/08/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	130	J, QI-1, CLP01, CLP33	ng/kg dry	240	2/28/11	3/08/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	240		ng/kg dry	240	2/28/11	3/08/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	16	U	ng/kg dry	240	2/28/11	3/08/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	47	J, CLP01	ng/kg dry	240	2/28/11	3/08/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	430	J, CLP33, QI-1	ng/kg dry	240	2/28/11	3/08/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	230	J, CLP01	ng/kg dry	240	2/28/11	3/08/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	4.0	U, J, QI-1	ng/kg dry	48	2/28/11	3/08/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	6.8	U, R, QI-1	ng/kg dry	48	2/28/11	3/08/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	140000	J, Q-3	ng/kg dry	240	2/28/11	3/08/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	30000	J, Q-3	ng/kg dry	240	2/28/11	3/08/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	7300	J, Q-3	ng/kg dry	240	2/28/11	3/08/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	15000	J, Q-3	ng/kg dry	240	2/28/11	3/08/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	240000	J, CLP02	ng/kg dry	480	2/28/11	3/08/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	16000		ng/kg dry	480	2/28/11	3/08/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	120	J, Q-3	ng/kg dry	240	2/28/11	3/08/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	1100	J, Q-3	ng/kg dry	240	2/28/11	3/08/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	650	J, D-5	ng/kg dry	650	2/28/11	3/08/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	540	J, D-5	ng/kg dry	540	2/28/11	3/08/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	850	J, D-5	ng/kg dry	850	2/28/11	3/08/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin**Project: 11-0207, Kerr-McGee Chemical (Columbus) Site****Contract Lab Case: 41017****Sample ID:** KMWP01**Lab ID:** C110907-59**MD No:****Station ID:** KMWP01**Matrix:** Surface Soil**D No:** 69X4 CAPE**Date Collected:** 2/16/11 9:00

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
41903-57-5	Tetrachlorodibenzodioxin (Total)	4.0	U, J, Q-3	ng/kg dry	48	2/28/11	3/08/11	CL DLM02.0
30402-14-3	Tetrachlorodibenzofuran (Total)	7.6	J, Q-3	ng/kg dry	48	2/28/11	3/08/11	CL DLM02.0



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Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site**Contract Lab Case: 41017****Sample ID:** KMWP02**Lab ID:** C110907-60**MD No:****Station ID:** KMWP01**Matrix:** Surface Soil**D No:** 69X5 CAPE**Date Collected:** 2/17/11 12:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	9.8		%		2/28/11	3/04/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	36		ng/kg dry	4.9	2/28/11	3/04/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	13		ng/kg dry	4.9	2/28/11	3/04/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	0.66	J, CLP01	ng/kg dry	4.9	2/28/11	3/04/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	0.57	U	ng/kg dry	4.9	2/28/11	3/04/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	1.2	J, CLP01	ng/kg dry	4.9	2/28/11	3/04/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	0.90	U, CLP18	ng/kg dry	4.9	2/28/11	3/04/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	0.54	J, CLP01	ng/kg dry	4.9	2/28/11	3/04/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	0.73	J, CLP01	ng/kg dry	4.9	2/28/11	3/04/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	0.30	U	ng/kg dry	4.9	2/28/11	3/04/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	0.27	U	ng/kg dry	4.9	2/28/11	3/04/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.32	U	ng/kg dry	4.9	2/28/11	3/04/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	0.57	J, CLP01	ng/kg dry	4.9	2/28/11	3/04/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	0.60	J, CLP01	ng/kg dry	4.9	2/28/11	3/04/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.16	U	ng/kg dry	0.98	2/28/11	3/04/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.49	U	ng/kg dry	0.98	2/28/11	3/04/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	120	J, Q-3	ng/kg dry	4.9	2/28/11	3/04/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	30	J, Q-3	ng/kg dry	4.9	2/28/11	3/04/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	12	J, Q-3	ng/kg dry	4.9	2/28/11	3/04/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	14	J, Q-3	ng/kg dry	4.9	2/28/11	3/04/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	540		ng/kg dry	9.8	2/28/11	3/04/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	16		ng/kg dry	9.8	2/28/11	3/04/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	2.1	J, Q-3	ng/kg dry	4.9	2/28/11	3/04/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	5.4	J, Q-3	ng/kg dry	4.9	2/28/11	3/04/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	2.2	J, D-5	ng/kg dry	2.2	2/28/11	3/04/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	1.6	J, D-5	ng/kg dry	1.6	2/28/11	3/04/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	1.8	J, D-5	ng/kg dry	1.8	2/28/11	3/04/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	0.45	J, Q-3	ng/kg dry	0.98	2/28/11	3/04/11	CL DLM02.0



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Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: KMWP02

Lab ID: C110907-60

MD No:

Station ID: KMWP01

Matrix: Surface Soil

D No: 69X5 CAPE

Date Collected: 2/17/11 12:30

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	2.3	J, Q-3	ng/kg dry	0.98	2/28/11	3/04/11	CL DLM02.0



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Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site**Contract Lab Case: 41017****Sample ID: 12624A2SB12****Lab ID: C110907-61****MD No:****Station ID: TN09****Matrix: Subsurface Soil****D No: 69R9 CAPE****Date Collected: 2/14/11 16:04**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
E1644012	% Moisture	17		%		2/22/11	3/02/11	CL DLM02.0
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	480		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	86		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	8.2		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzodioxin	1.5	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	11		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzodioxin	10		ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	2.8	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzodioxin	3.0	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	3.1	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
40321-76-4	1,2,3,7,8-Pentachlorodibenzodioxin	0.33	U, CLP18	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	0.80	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	4.1	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	2.7	J, CLP01	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
1746-01-6	2,3,7,8-Tetrachlorodibenzodioxin	0.11	U	ng/kg dry	0.97	2/22/11	3/02/11	CL DLM02.0
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	0.51	U	ng/kg dry	0.97	2/22/11	3/02/11	CL DLM02.0
37871-00-4	Heptachlorodibenzodioxin (Total)	1300	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
38998-75-3	Heptachlorodibenzofuran (Total)	380	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
34465-46-8	Hexachlorodibenzodioxin (Total)	72	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
55684-94-1	Hexachlorodibenzofuran (Total)	130	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
3268-87-9	Octachlorodibenzodioxin	7200	J, CLP02	ng/kg dry	9.7	2/22/11	3/02/11	CL DLM02.0
39001-02-0	Octachlorodibenzofuran	340		ng/kg dry	9.7	2/22/11	3/02/11	CL DLM02.0
36088-22-9	Pentachlorodibenzodioxin (Total)	4.4	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
30402-15-4	Pentachlorodibenzofuran (Total)	21	J, Q-3	ng/kg dry	4.9	2/22/11	3/02/11	CL DLM02.0
R4-0428	TEQ (Avian Toxic. Equiv. Value, WHO TEQ-98)	8.5	J, D-5	ng/kg dry	8.5	2/22/11	3/02/11	CL DLM02.0
R4-0429	TEQ (Fish Toxic. Equiv. Value, WHO TEQ-98)	7.0	J, D-5	ng/kg dry	7.0	2/22/11	3/02/11	CL DLM02.0
R4-0430	TEQ (Mammalian Toxic. Equiv. Value, WHO TEQ-2005)	13	J, D-5	ng/kg dry	13	2/22/11	3/02/11	CL DLM02.0
41903-57-5	Tetrachlorodibenzodioxin (Total)	0.46	J, Q-3	ng/kg dry	0.97	2/22/11	3/02/11	CL DLM02.0



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 11-0019

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site - Reported by Jeffrey Hendel

Dioxin

Project: 11-0207, Kerr-McGee Chemical (Columbus) Site

Contract Lab Case: 41017

Sample ID: 12624A2SB12

Lab ID: C110907-61

MD No:

Station ID: TN09

Matrix: Subsurface Soil

D No: 69R9 CAPE

Date Collected: 2/14/11 16:04

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
30402-14-3	Tetrachlorodibenzofuran (Total)	5.7	J, Q-3	ng/kg dry	0.97	2/22/11	3/02/11	CL DLM02.0